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From Reports to Response

Proceedings of Regional Conferences on the Quality of American Higher Education

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ABSTRACT

Proceedings of three regional conferences on the quality of American higher education are presented. Sponsored by the Office of Educational Research and Improvement, these conferences consisted of round-table discussions concerning recommendations from the national report "Involvement in Learning," as well as strategies needed to implement the recommendations. A selection of responses offered by presenters are provided for each topic. The three sets of proceedings cover involvement, expectations and standards, and assessment in higher education. In addition to background and research issues, the proceedings on involvement consider: the impact of research participation, internships, and learning communities on students; incentives for active modes of teaching; and perspectives of students, legislators, and trustees on involvement. The proceedings on expectations and standards cover: defining college-level learning, remedial education, and proficiency assessments for associate and bachelor's degrees. The proceedings on assessment consider the state and college role in assessment, as well as faculty and student roles. Finally, excerpts from presentations on three topical panels are presented: involvement of adult and part-time students, the role of counseling and advisement in higher education reform, and alternatives to formula funding. (SW)

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From Reports to Response:

Proceedings of Regional Conferences on the Quality of American Higher Education

DEPARTMENT OF EDUCATION
UNITED STATES OF AMERICA

Edited with an Introduction by
Clifford Adelman
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II

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TABLE OF CONTENTS

Introduction: What is in This Volume and Why?

Involvement 1

1. Background and Research Issues
2. Evidence of Impact
3. Incentives for Active Modes of Teaching
4. The Student Perspective on Involvement
5. The Legislative and Trustee Perspective

Recommendations and Strategies

Expectations and Standards 27

1. Defining "College-level Learning"
2. The Status and Treatment of Remedial Education
3. Can We "Warranty" the Bachelor's Degree?
4. Can We "Warranty" the Associate's Degree?

Recommendations and Strategies

Discussions of Assessment in Higher Education 49

1. The State Role in Assessment
2. The Institutional Role in Assessment
3. Faculty Roles in Assessment/The Assessment of Faculty
4. The Student Role in Assessment

Recommendations and Strategies

Special Topics 71

1. The Involvement of Adult and Part-Time Students
2. The Role of Counseling and Advisement
3. Alternatives to Formula Funding

INTRODUCTION

Hammers, Chisels, Matches, Nails, Screws and Glue

This volume is an account, an experiment, and part of a larger drama in the diffusion of ideas for change.

Between October of 1984 and February of 1985, three major national reports on the quality of American higher education were issued. They were, in order of appearance:

(1) Involvement in Learning, written by a seven-member Study Group on the Conditions of Excellence in American Higher Education, sponsored by what was then known as the National Institute of Education, and published by the U.S. Department of Education.

(2) To Reclaim a Legacy, written by Secretary of Education William J. Bennett in his former capacity as Chairman of the National Endowment for the Humanities, with the advice of a 32-member Study Group, and published by the Endowment.

(3) Integrity in the College Curriculum, written by Frederick Rudolph as a result of deliberations of a 19-member Select Committee of the Association of American Colleges, and published by the Association.

Coming on the heels of a period of intense criticism, reflection, and reconstruction concerning the Nation's secondary schools, these reports turned the spotlight of public concern on higher education, and offered telling critiques, along with some constructive suggestions and recommendations for doing better. These critiques and recommendations were widely reported in the media, and stimulated considerable reaction from literally thousands of faculty, administrators, students, state higher education officers, members of boards of trustees, legislators, and the general public. The reactions, of course, ranged from absolute denials to enthusiastic embraces.

The project that determined the nature and timing of the events upon which this publication is based was that which resulted in Involvement in Learning, and hence our principal focus is on that document.

From its very inception, what became Involvement was a dissemination project. This strategy was not the product of arrogance. The members of the Study Group did not know whether they would write one or two reports at the end of their work, or what would be in those reports, or whether those reports would ever be published. As students of higher education reform, however, they did not wish to engage in an activity that would be unknown and unconsidered by others. They knew that if a worthy and challenging document emerged from their labors, it should be shaped, in part, in terms of its audiences; and they anticipated settings and occasions in which its analyses and recommendations could be discussed and acted upon.

The members of the Study Group also knew that it was necessary to sustain this discussion as long as possible. There is good theoretical reason for this approach, whether one calls the theory "diffusion" or "propaganda." That is, it takes some time for public messages to reach their intended audiences with a force necessary to encourage those audiences to participate in constructive responses. As the French sociologist, Jacques Ellul, wrote, propaganda in democratic societies "aims solely at *participation*," and because of the competing belief systems in democratic societies, propaganda must be continuous in order to result in participation. Unlike the aims of propaganda in totalitarian societies, there is no predetermined end to this process, no particular action other than a participation that considers the messages as viable options.

How do we know when people in the higher education community are seriously considering the recommendations of all these reports, and not merely denying them or cheering them on uncritically? The philosopher Ludwig Wittgenstein offers a metaphor I have used frequently in trying to answer this important question about the success of dissemination efforts. A person goes to a tailor and tries on a suit. What does he or she say? "'That's the right length,' 'That's too short,' 'That's too narrow,'" to which I would add questions in which the anatomy of the person is more explicit, e.g. "What would happen if we pulled in the seat an inch?" or "Does that make me look taller?"

The judgments implicit in such questions are aesthetic, and indicate a stage of appreciation that may lead to action. What counts, though, is that we provide the opportunity for people to go to the tailor's shop, try on the clothes, and determine the relation and proportion of the garments *to their own circumstances*. Transferred to this particular situation of the diffusion of ideas, I would argue that, in the process, the messages and recommendations of the reports are adjusted, and are more likely to be accepted as modified.

This volume is a testimony to the opportunities provided for people to go to the tailor's shop, and to the adjustments *they* made in the messages and recommendations of the major reports on higher education.

Between February and May of 1985, the Office of Educational Research and Improvement sponsored three "regional conferences" on the quality of American higher education. Each regional conference was operated by a local host organization, with whom we worked in establishing agendas, protocols, and logistics. The places, dates, geographical coverage, and hosts of these conferences were:

7

Boston, Mass., Feb. 20-22, 1985; 14 states in the northeast and mid-west plus the District of Columbia; hosted by The New England Board of Higher Education.

New Orleans, La., April 17-19, 1985; 18 states in the south and mid-west; jointly hosted by the Louisiana Board of Regents of Higher Education and Xavier University of Louisiana.

Los Angeles, Calif., May 2-4, 1985; 19 states in the west and plains; hosted by The California State University.

Some 1500 people attended these conferences: for the Boston conference, they were invited primarily as state delegations organized by chief state higher education officers; for the New Orleans and Los Angeles conferences, they were invited through less structured methods. At the same time, the conferences were announced to the public in advance and attendance was not limited to invitees. The purpose of invitations, though, was to ensure that a variety of perspectives would be represented at the conferences, and that we would all have the chance to hear state legislators, students, trustees--as well as college faculty and administrators--address the issues raised by the reports. In fact, conference attendees were also privileged to hear the governors of California, Michigan, Pennsylvania, and Massachusetts, and the former governor of Mississippi offer the perspectives of the states on higher education reform.

Format: The Round Tables

The format of these conferences contained some risks, as it was designed to elicit emendations and modifications to the recommendations in *Involvement*. The core of each conference consisted of a series of two to three hour round-table discussions. Depending on the logistics, three or four of these round tables were conducted simultaneously on *each* of the three major themes of the report: Involvement, Expectations/Standards, and Assessment. The round tables were repeated so that each conferee could attend discussions on two of these themes. Depending on conference attendance, the number of people in each round table ranged from fifteen to fifty. Each round table was presented with an identical task: to examine a given set of controversial recommendations on the topic (Involvement, Expectations/Standards, or Assessment) from *Involvement in Learning*; to consider both the theory upon which those recommendations were based and the evidence suggesting their potential effectiveness; and to think about the diverse contexts in which those recommendations might be played out. Most importantly, the round tables were charged with offering *concrete guidance* to colleges, community colleges and universities as to how the recommendations should be modified (if at all) and what *specific* strategies would be necessary to implement them.

To assist these small groups in their deliberations, four or five of their members were asked in advance to prepare short presentations in response to very specific questions concerning the recommendations and their implications. These presentations became the grist for the discussions, and in many cases, for the round table's own recommendations and suggested strategies. A recorder was present in each session, and reported the highlights of the discussions and the recommendations of the groups.

This volume is largely based on the work of these presenters and recorders.

The Panels

In addition to the round-table discussions, the three regional conferences also offered more traditional panels on key topics and perspectives related to higher education reform. The topical panels picked up issues that were more implicit than explicit in all three of the major reports; they considered *To Reclaim a Legacy* and *Integrity in the College Curriculum* in addition to *Involvement*. These issues were selected in consultation with the host organizations, which also chose the panelists, and included:

- Alternatives to Formula Funding
- The Role of Faculty in Higher Education Reform
- Instructional Technology: Equity and Effectiveness
- The Impact of Higher Education Reform on Secondary Schools
- Joint Education Ventures of Employers and Colleges
- The Role of Counseling and Advisement in Student Involvement

The second set of panels provided occasions on which the higher education community could listen carefully to those whose perspectives lay *outside* the Academy, including the press, school superintendents and chief state school officers, corporate officials, and state legislators. At each conference, there was also a special panel in which college students offered comments on the reports.

What is in This Volume and Why?

There was a richness of program and discussion at all three regional conferences that no printed volume could capture, just as we suspect there has been a richness to the discussions of these reports on higher education on college campuses across the nation. We are fortunate, though, in having written records of the round-table discussions, texts of many of the short presentations, and texts of the presentations of some of the topical panels. Collectively, these records and texts represent a national process of emendation to the reports (with particular emphasis on Involvement), and in that respect should be shared with a broader audience.

This volume is organized in four sections. The first three consist of the proceedings under each of the major themes of the round tables. Each set of proceedings is presented in the following order:

- A background statement concerning the theme, the recommendations on which the round table was asked to focus, and the questions the presenters were asked to address.
- For each background topic addressed, a selection of the most direct and concrete responses offered by presenters.
- A section of "Recommendations and Strategies" that is a synthesis of the recorders' notes (along with other written reports by staff observers) from all three regional conferences.

While there were over 200 presenters at the various round-table sessions, not all of them prepared written texts of their remarks. I take responsibility for making a selection from the texts submitted, according to certain criteria: directness, concreteness, and diversity. As for the "Recommendations and Strategies," the reader should recognize that they are composites of brief discussions conducted by different groups of people in different places under guidance of different moderators, hence should not expect them to be fleshed out. At the same time, some of these recommendations and strategies are as challenging as those in the national reports themselves.

The fourth section of this volume consists of excerpts from the presentations at three of the topical panels:

- Strategies for the Involvement of Adult and Part-Time Students;
- The Role of Counseling and Advisement in Higher Education Reform;
- Alternatives to Formula Funding

These three were chosen principally because we received a sufficient body of written material from those panels, and not from the others. By no means would we suggest that the presentations and discussions at the other panels were any less worthy of reporting.

The Tool Box

This introduction has a title, one drawn from yet another of Wittgenstein's many metaphors:

> I have often compared language to a tool chest, containing a hammer, chisel, matches, nails, screws, glue. It is not chance that all these things have been put together--but there are important differences between the different tools--they are used in a family of ways--though nothing could be more different than glue and a chisel.

Hammer, chisel, matches, nails, screws, glue. The powers to straighten, shape, illuminate, and bond. In the course of the regional conferences, I think we learned a great deal about the use of these tools at the in stimulating participation in the current reform movement in higher education, even when some of the ideas of that movement may seem to be too familiar.

We learned that simply picking up the tool box is an important act; it is a performance that recognizes the continued necessity of communicating the messages of all the reports. We need duration, we need repetition, and we need it because there is still a counter-propaganda that tends to blame all the ills of higher education on the secondary schools, that tends to ignore what our colleges, community colleges and universities do for students between matriculation and graduation. As long as the "I'm-all-right-Jack-and-it's-all-somebody-else's-fault" message has any strength in the public eye, college faculty and administrators will hesitate to go to the tailor's shop and try on the clothes.

Academics often exhibit a very condescending attitude toward good public relations, toward the "informal propaganda" inherent in the national reports, and the conferences and publications that were planned to follow them. That attitude is part of a belief system that often prevents us from picking up the tool box. We believe that truth is its own messenger, and that we don't need some Danny Rose to book the act. Our weapons are ideas, after all, and the power of ideas is so self-evident, we believe, that all we have to do is preach, and others will come to us for wisdom. We could not be more mistaken.

At the same time, in advocating that we pick up the tool box, none of us would argue that it is sufficient to act regardless of the quality of the action. None of us would say that it is sufficient to generate a propaganda in support of ideas regardless of the practical or moral vision of those ideas. None of us would say that it is sufficient to provide the public with examples of promising avenues in higher education without a critical assessment of just what those avenues promise and just how well they can lead students from here to there.

Back in 1962, James Baldwin wrote in the New York Times Book Review that the writer's job was "to tell as much of the truth as one can bear, and then a little more." Telling the truth has the tendency to straighten us out, and part of telling the truth is a matter of style. It means that we stop resorting to euphemism and generalized levels of diction. In the realm of rhetoric, it means running the risk of offending someone's sensibilities by being uncomfortably honest, by actually saying precisely what we mean by a phrase such as "clear standards." It means that we stop tolerating exhausted idioms, tired phrases, repackaged pap, or mashed information, lest our colleagues and students continue to be deceived. And it means that when we witness an ignorant practice being perpetrated on students, we are under the moral obligation to label that practice for what it is without an ounce of ambiguity. In many of the statements in this volume, the reader will witness the hammer of truth at work, and that is a tribute to those who gave of their time and effort to the vision of diffusion in the regional conferences. We live in an environment, Baldwin wrote, "in which words are mostly used to cover the sleeper, not to wake him up." The hammer tends to wake us up. Without it, there is no leadership.

What we also learn from the statements in this volume is that there is an ever-expanding circle of witnesses to reform in American higher education whose work is both shaping (the chisel) and illuminating (the matches). Among these witnesses, one can identify a set of emerging leaders in our institutions, associations, agencies, and legislatures, and we should all make an effort to advance their roles. The more who bear public witness, the more who feel they have a proprietary and acknowledged role in this movement, the greater the illumination of ideas and the potential bonding (nails, screws, and glue) of people in a common concern.

* * * *

We owe particular thanks to the host organizations for the three conferences, and to their leaders: John Hoy, President of the New England Board of Higher Education; William Arceneaux, Commissioner of the Louisiana Board of Regents; Norman Francis, President of Xavier University of Louisiana; and W. Ann Reynolds, Chancellor of the California State University. We are also appreciative of the diligence, imagination, and just plain hard work of the Conference Coordinators: Selby Holmberg of the New England Board, Dale Thorn of the Louisiana Board, John Costello of Xavier University, and Richard Sutter of the California State University. Within the Office of Educational Research and Improvement, I was grateful for the assistance of Pauline Gingras and Sally Candon in organizing the conferences, for their communications with presenters and hosts, for their on-site management, and for their wise sense of protocol. A year later, this volume owes much to the support and encouragement of Assistant Secretary Chester E. Finn, Jr., the production work of Montrulla Haskins at OERI, and to the production services of the American Association for Higher Education. Finally, I think American higher education is in debt to all the members of all the study groups that advised and/or wrote the reports that ushered in the current period of reflection and renewal.

Clifford Adelman
Senior Associate
Office of Educational Research
and Improvement

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I. INVOLVEMENT

> "The first of these three conditions [of excellence] -- and perhaps the most important for purposes of improving undergraduate education--is student involvement. By involvement we mean how much time, energy, and effort students devote to the learning process. . . . The notion of student involvement resembles in certain respects the more familiar psychological concept of motivation. But it implies something more than just a psychological state: it connotes behavior, and behavior can be directly observed, measured, and assessed."---Involvement in Learning

The core recommendations of Involvement in Learning were based on a theory derived from empirical research: that the more active engagement of students in both learning tasks and the life of a college will lead to improved rates of retention and higher achievement, and that the most critical period for student involvement occurs in the first year of the baccalaureate experience, whether that first year takes place in a community college or a baccalaureate degree granting institution. According to this theory, the quality and intensity of effort are more important to academic success than mere "time-on-task."

On first reflection, the theory seems to make sense, but in most national reports on education written over the past decade, both the student and his/her learning process appear as an afterthought, if at all. Involvement started with the student, and was the only national report on education your editor could find that made serious (and not merely hortatory or rhetorical) recommendations to students. This fresh point of view in the context of a national report created a great deal of interest on the part of conferees in discussing the recommendations designed to increase student involvement, principally:

- "Front-loading," i.e., the administrative strategy of reallocating resources to provide greater service to first-year students;

- A shift by faculty toward "active modes of teaching," i.e., ways of presenting subject matter that require students to take greater responsibility for their own learning, and that preclude student passivity;

- The organization of "learning communities," sub-units that cut across departments or that carve out a thematic niche within a department or division, or that work in cooperation with the external world of business, public agencies, and/or community organizations;

- A strengthening of existing co-curricular organizations, associations, and activities to maximize student involvement by providing opportunities to exercise, apply, and reinforce course-related learning.

These were the four recommendations that served as the backdrop to the round-table discussions.

We did not ask the presenters at each round table to address the recommendations directly. Instead, we asked a series of questions about the theory and practice of "involvement" that were not discussed in detail in the report itself. These questions (and the prepared comments stimulated by them) follow.

1. Background and Research Issues

The first set of background questions concerned the knowledge base. That is, before colleges go about the business of designing and implementing strategies to increase student involvement, what do they have to know? Many issues arise in this context, e.g., time-on-task, impact of the environment, competing forces for the discretionary time of students, etc. And these issues apply to different student populations, e.g., full or part-time, traditional age or adult, majority or minority. What questions would one need to answer, and what research literature would one consult, if one sought to improve retention and achievement through an involvement strategy? The presenters were stimulated in different ways by these questions, as should be evident from the following selections.

Gary Hanson, Professor, University of Texas at Austin

The attitudes that shape involvement in the learning process are based on students' past experiences in education, their hopes and dreams for the future, and the realities of the first year in college. These three factors dictate not only the level of subsequent involvement, but also whether higher education is pursued at all.

The examination of previous educational experiences of our students must distinguish between the traditional college-bound high school senior and the returning student with several years of work experience. The traditional college-bound students have been highly rewarded for modest performance in their academic coursework in high school, have placed more emphasis on extracurricular activities than on the academic curriculum, and are both idealistic and naive about their future involvement in the educational process. Nontraditional returning students, while more realistic and worldly, have greater fears about the unknown aspects of higher education. The years have changed their perceptions, as well as the facts about how they may participate in the process of learning. They are less secure about their skills, but very highly motivated to succeed.

Key indicators of students' attitudes toward involvement in their learning experience are the expectations they bring to the first year. Students expect to do well academically. According to the 1984 freshman norms from the Cooperative Institutional Research Program at UCLA, more than 8 out of 10 students expect to get a college degree, approximately 25% expect to attain a B average or better, and about 15% expect to graduate with honors. Less than 2% expect to fail a course and less than 1% expect to drop out of college permanently. Also, students tend to believe they are well prepared for college, in spite of evidence to the contrary. Few students (less than 20%) expect to need help with writing or math, or to work with a tutor. Even fewer students seek either vocational or personal counseling. The prevailing attitude among entering college students, then, indicates low level of involvement in the counseling and academic preparation services traditionally provided on most college campuses.

Interestingly, while minority students and nontraditional students have similar levels of educational aspirations, they do seem to be more realistic in recognizing the need for help.

But what happens during the first year of college? What happens to involvement when less than 1% of the students expect to drop out during the first year and more than 20% actually leave? What happens to involvement when less than 2% expect to fail a course and some courses that screen students out of "high demand" majors routinely fail 30% to 50% of the students enrolled? What happens to involvement when students realize they need help and there is a waiting list of nearly 200 students at the counseling center? What happens to involvement when faculty members fail to show up for scheduled office hours? Can we be too surprised if students have little interest in being involved but merely want to get out as fast as possible? . . . And getting through the educational process quickly seems to preclude the quality time needed to ensure involvement.

Institutions must take responsibility for fostering active student learning. Student affairs administrators have come to recognize that the campus environment has a strong influence on student learning. . . Looking at the learning environments on campus forces us to examine the institution's policies, procedures and values. Do the physical classrooms encourage interaction or is there a physical space separation between student and faculty? Do students have to walk long distances across campus to seek out faculty during office hours? Do the enrollment management policies encourage large class sizes that prevent likely debate and discussion? Are the state budgeting formulas likely to place more emphasis on numbers of students rather than the quality of their learning experience? Is time provided for students to receive assessment and feedback from faculty members?

Yet another barrier to student involvement is lack of knowledge concerning how college students learn. All too often the assumption is that one teaching strategy will work for all students. How many faculty tell students to learn the course content but spend little or no time teaching them how to learn? Progress is being made, however. A three-credit course for undergraduates at the University of Texas teaches students ten different cognitive learning strategies. The improvement in subsequent college academic performance has been impressive. In addition, the development of the Learning and Studies

Strategies Inventory (LASSI) by Weinstein (1981) has facilitated the assessment and feedback of student learning.

John Centra, Professor, Syracuse University

In considering the instructional methods designed to increase student involvement, the research demonstrates that no single instructional method is best for all desired outcomes. A lecture or a film is a suitable means for transmitting information, but a poor mode for developing students' independent thinking, communication skills, job skills, etc. Even for purposes of transmitting knowledge, lecturing has a limited lasting effect: one study indicated that students could recall only 17% of the material in a lecture they heard just one week earlier.

The philosophical/theoretical basis for more student involvement in learning is centuries old, viz. the ancient Chinese proverb:

> I hear, and I forget
> I see, and I remember
> I do, and I understand

One can set forward a continuum of instructional methods from those emphasizing teacher activity (top) to those emphasizing student activity and involvement (bottom), to wit:

- Lecture, Films, Slides
- Lecture/Discussion/Questioning/Socratic Method
- Seminars, Case Method
- Simulating and Gaming, Role Playing, Debating
- Individualized Instruction (including PSI, Audio-Tutorial and Computer-Assisted), Supervised Independent Study, Laboratory Work, Tutorials
- Independent Study (unsupervised), Student Research, Independent Field Work

By far the most prevalent current mode of teaching in colleges and universities is the lecture method. And even if we agree that a shift toward the bottom of the continuum is necessary, we should consider that: (1) many students find the lecture method easier and have become accustomed to it (other styles of learning are less agreeable to it); (2) some studies indicate that students over 30 prefer traditional instructional styles to student-centered learning; and (3) at many institutions, particularly larger ones, entering and lower-division students take mainly large lecture courses and courses offering greater student involvement are generally not available until late in a student's college career.

Ernest Sturch, Vice President for Instruction, Southeastern Oklahoma State University

The challenge is not to wait for more information on what works in learning, but to inform and incite those whose business is learning.

On the surface, this appears to be an enormous task requiring a significant stride in action.

Some of the great leaps in science have been made by discovering the right question to ask (e.g., from "Why do things move?" to "How do things stop?," which revolutionized our concepts of motion). We now need to ask not what works in learning but how we do what we know works. Our solutions must have more promise than Will Rogers' solution to the submarine menace: "Boil the ocean!" That is to say, we must create the networks and incentives to inform the leaders and motivate the players. And if we know that the freshman year is critical, incentives must underline the importance of teaching freshmen, and involving them in learning through active modes of teaching.

On the institutional level, active leadership is necessary. As first steps, leadership can:

1) See to it that current information on teaching, learning and the curriculum is made available to key individuals.

2) Actively seek out and enlist the support of faculty who are able and willing to help, and who have the respect of their peers. Give them specific tasks and set specific dates to measure progress. Publicize their recommendations and information in a faculty newsletter.

3) Hold campus-wide conferences on learning, expectations, curriculum, assessment, and the national reports.

4) Teach a freshman class!

2. Evidence of Impact

Commentators on Involvement in Learning were particularly intrigued by recommendations concerning Learning Communities, Internships, and Research Participation. We asked presenters at the regional conferences to consider the evidence that these environments and procedures for college-level learning have a significant impact on the achievement of lower-division students in particular. After all, faculty, administrators, and students want to be reasonably convinced beforehand that a set of contemplated changes will have positive effects. It was not unreasonable, then, to ask institutions and individuals who had experimented with particular strategies for student involvement to tell us something about the types of achievement and changes in student aspirations that have been observed as a result of these approaches to learning.

Joan Girgus, Dean of the College, Princeton University

Before the 20th century, there were basically two pedagogical approaches in undergraduate classrooms: lecture and (largely memorized) recitation. Educational settings and approaches which permit, encourage or require students to play an active role have emerged very slowly. In recent years, learning environments have become increasingly diverse, although many of the specific proposals and examples offered by Involvement in Learning have been part of the environment of particular institutions for many decades. For example:

(1) Small group discussions or seminars on a regular (at least weekly) basis. This approach works best with courses in the humanities and social sciences, where extensive reading is the central element of the course, and where even the most basic questions have more than one possible answer. Small group discussions do not work as well in subjects such as mathematics, economics, or the natural sciences, particularly at the introductory level. In the latter cases, opportunities for reasonably small groups of students to have question and answer sessions work to better effect.

(2) Laboratories in the sciences and engineering--as well as studio work in architecture and the fine and performing arts--can provide an environment for active involvement in learning, even in introductory courses, although required laboratories often fail miserably in this regard. The more students are able to get a feel for how real science or architecture or dance is done, the more such settings will encourage active involvement with the course material rather than a simple "going through the motions."

(3) The use of term papers and other written exercises rather than examinations encourages students to engage the material in ways that might not otherwise occur. Similarly, on examinations, the use of essay questions that cannot be directly answered from what was said in lecture or read in a textbook, but that require some concentrated thought and connection between various parts of a course, will help students understand how they are meant to approach intellectual material and important questions. Distribution of sample questions in advance can help students review the course material in an active, engaged manner.

(4) Independent work (referred to in the report as "individual learning projects" and "supervised independent study") under the guidance of a faculty member is probably one of the best ways to encourage students' to learn what it is like to be fully engaged. . . . Because such work is not connected to a particular course . . . the definition and setting of the question(s) to be asked are almost as important as the process of organizing the final paper. Independent work is probably the aspect of the academic process that most closely resembles the way we hope our students will approach their lives as thoughtful and engaged adults. Independent projects of this kind can be undertaken in any field or subject. . .

(5) Apprenticeships. There is always some risk that the connections between the apprenticeship experience and the core academic work done in more traditional settings will not be visible to students. If these connections are not made strongly, then the apprenticeship . . . will become a separate -- and separating -- experience in which the "real world" is perceived as quite different from academic life. It is crucial that apprenticeship situations be pursued as vehicles for the same kinds of analysis and synthesis that occur in more conventional

settings, although the problems and their resolutions may be quite different. This can occur if the supervisors in the apprenticeship situations see themselves as teachers. . . . Properly understood and pursued, the apprenticeship experience and the classroom experience become mutually reinforcing.

If we believe that active engagement will lead to better student learning, and that some settings are much more conducive to active engagement than the more usual, less labor intensive, settings, then both institutions and faculty members must begin to think about how they can reallocate their collective and individual resources to provide a better mix of settings, particularly in the first and second years when such opportunities are fewest, and academic difficulties and subsequent attrition are most frequent. Before we undertake a drastic realignment of this sort, however, it would be useful to test the limits of this proposition, particularly for freshmen and sophomores. Whereas environmental settings of the kind recommended in the report may be ideal for more advanced students, beginning students may be better served by a carefully crafted balance between such opportunities and more traditional approaches. Curricular experiments designed to test various combinations of approaches and opportunities in different educational settings with a range of student populations . . . could begin to provide some sense of what will work best, where, and for whom.

James B. McKenna, Professor, SUNY at Stony Brook

Learning communities stand for individual achievement in the context of an authentic academic community. They begin with specific curricular structures designed to bring faculty and students into sustained connection and involvement with each other around common academic tasks and interests . . . Successful communities enable faculty to employ their expertise in new and more effective ways.

Learning communities are based on the notion that learning is a social, as well as an individual, enterprise. Learning is most successful and enduring when students test themselves, their ideas, commitments and values -- as well as their doubts and uncertainties -- in challenging, yet supportive, collegial interaction with their peers.

Learning communities focus the institution's intellectual resources on issues of broad human significance, such as world hunger or international understanding. Students experience the power and beauty of specialized knowledge being brought to bear on an issue they care about. They also learn to recognize the inherent limitations of specialized knowledge. They experience first hand the gift and the burden of the liberally educated person, that is, the unending task of integrating knowledge and information in the search for viable positions and solutions. As they become more actively involved in the work of the community, drawing from it and contributing to it, they gain confidence in their ability to act effectively and responsibly.

It should also be emphasized that learning communities can be a powerful mechanism for faculty effectiveness. Working closely with colleagues from other departments and divisions, and with students genuinely interested in their interests, they experience academic community in deeply rewarding and challenging ways. Learning communities often place them in new roles, such as Stony Brook's Master Learner, a faculty member who takes on student responsibilities and serves as a role model for both students and faculty. Faculty participants invariably become better teachers, and some become better scholars, as the stimulation of new colleagues leads to new research initiatives. Learning communities thus function as cost-effective faculty development programs.

The success of learning communities depends on serious commitment, as they place intense demands on the time and energy of faculty and students. They can also be uncomfortably unorthodox, in that faculty and students must relinquish habits of distancing and mutual accommodation, of authority on the one hand and passivity on the other. We often crave community and attention only to flee to the security of privacy and anonymity. As faculty and students work together in new ways, they occasionally find that the equivalent of a wild tiger has broken into the classroom. Since they cannot shoot it (although they may try), they realize that they have to ride it and see what happens.

Karl Weiss, Associate Provost, Northeastern University

Effective learning environments encourage students to delve more deeply into subject matter than is required by routine assignments . . . In devising new approaches, we need to avoid substituting style for substance . . .

The procedures suggested in Involvement in Learning are all well known and have been applied in a variety of settings. The themes underlying the recommended modes are (1) experiencing disciplines in action, and (2) more individualized attention. In each case, students can derive substantial benefits if appropriate conditions are established.

(1) Research Participation. To learn in the research setting, students need to have a firm foundation in the discipline. This requirement limits research participation in faculty projects to upper division students. . . This self-selection process, coupled with the faculty desire for effective assistance, tends to limit participation to better students. Thus, student research participation is not a universally applicable mechanism for deeper involvement in the learning process.

Students are enthusiastic research participants; indeed, they can become so deeply involved that their performance slips in other academic work. This potentially detrimental situation places special responsibilities for proper guidance on the supervising faculty.

(2) Internships. This learning mode is, in principle, intended to link formal learning with work experience. . . A meaningful integration of academic study and work experience, however, is by no means easy to achieve. This is particularly true in non-professional areas such as

arts and humanities. Both internships and cooperative education require a great deal of administrative attention with respect to counseling, placement, and monitoring. The total time frame for undergraduate programs involving work experience and the assignment of credit for the non-academic activity are issues which institutions contemplating experiential education need to address.

(3) Learning Communities. Learning units in institutions of higher education have traditionally been organized along disciplinary lines within hierarchical structures (college-department-division) . . . Academic culture has deep roots and is persistent; barriers to meaningful interactions between units will not be easily surmounted. There need to be incentives for faculty to work together across disciplinary lines. In particular, activities outside the home department must be recognized in tenure, promotion, and salary decisions. In professional fields, broadly based interactions tend to be severely circumscribed by accreditation requirements. In implementing the learning community concept. . . care must be exercised to achieve a proper balance of breadth and depth in the themes chosen for attention.

Susan Dillbeck, Professor, Maharishi International University

When students can relate whatever new item of knowledge they learn to the whole discipline, and even more importantly, to the principles governing their own growth, they feel a lively connection with the material. Maharishi's integrated approach involves students in learning in two ways. First, the practice of the Technology of the Unified Field [a form of meditation conducted for twenty minutes at the beginning and end of each day] systematically broadens their perception through the repeated experience of the unbounded state of their own awareness. Spontaneously, they begin to embrace an ever-widening territory of life as familiar, recognizing universal principles of man and nature as relevant to their own existence.

Secondly, the use of "unified field charts" in the classroom enables students to interconnect all the major areas of a discipline at a glance, and to trace the sequential emergence of these areas from the unified basis of the discipline. . . The experience of continually relating "parts to whole and whole to self" develops an intimacy with knowledge that is compelling. Knowledge ceases to be perceived as fragmented and irrelevant; it is owned by the students, and thereby enlarges their understanding of experience and their capacity for fruitful thought and action.

Jules LaPidus, President, Council of Graduate Schools

Recommendation #2 of Involvement in Learning urges college faculty to involve students in faculty research projects, to encourage internships, to organize small discussion groups, to require in-class presentations and debates, and to create opportunities for supervised independent study.

This is striking because it is familiar; it describes what usually happens in graduate school . . . Why does this work so well in graduate education? . . . Everyone expects to be pushed, to be extended intellectually, and often a little farther than is comfortable. It's a two-way street, and there are powerful incentives on both sides. The reward structure is such that advancement and professional recognition come to those who are most active, most involved, and who contribute the most. This applies to faculty and students alike.

Is this transferable to undergraduate education? . . . In large universities in particular, there may be too many students and too few faculty. Beginning undergraduates may not be prepared for the intellectual give and take of the kind of active learning that works so well in graduate schools or highly selective undergraduate institutions. But let's assume that we could solve the student/faculty ratio problem. What incentives would exist for faculty to participate in the intense, personalized instruction that we have been discussing? Let me suggest conditions rather than incentives.

A first condition would be that this kind of teaching be done "in load" as part of the normal expectation for faculty, and that it must be realistic in terms of other responsibilities. . . A second condition would be that this activity not have a negative effect on the professional career of faculty so involved. . . i.e., assurance that it would be valued by colleagues and academic administrators. Finally, there would have to be the potential for making converts.

Students, whatever their age or academic level, have the desire to learn and are ready - intellectually and emotionally, to be involved. We need to raise our expectations about students; they need to raise theirs about us. We must expect them to come to the university prepared to think . . . and they must expect us to give them something to think about. If this kind of atmosphere can be established, involvement in learning will become a way of life.

3. Incentives for Active Modes of Teaching

Faculty are at the core of nearly all the strategies for improvement recommended by the major national reports on higher education. For these recommendations to be followed, faculty will have to stretch; they will have to learn to teach in new ways; they will have to make assessment and feedback a part of the instructional process; and, in four-year colleges they will have to learn much about--and become particularly sensitive to--first and second-year students. Faculty may not do all of this out of the goodness of their hearts. So we asked presenters--both in the roundtables and in special panels on the topic--to consider the limits of faculty efforts. What incentives will we need for faculty? What evidence is there that those incentives will work in different kinds of institutions?

Robert Parelius, Professor, Rutgers University

Involvement in Learning asks a great deal of faculty members. Professors are urged to discard their comfortable and familiar (albeit passive) teaching techniques, to act as intellectual guides and mentors rather than mere instructors, to participate in interdisciplinary learning communities, and to end their preoccupations with narrowly specialized areas of research and publication. Faculty members are also requested to develop and implement formal processes of goal specification, assessment, and feedback in order to regularize the process of improving undergraduate instruction. In other words, faculty are asked to make quality undergraduate teaching their primary professional commitment.

For most faculty, this is less of a challenge than it might initially seem. The professional activities of most American college professors already consist almost exclusively of undergraduate teaching. Relatively few faculty members, concentrated in relatively few institutions, teach graduate students, get grants, conduct research and publish. Therefore, from the point of view of most faculty, the call to center one's professional activities on undergraduate teaching is essentially conservative and non-threatening. True, the report does ask them to increase their involvement and to do a better job, but it also recommends that improvements be recognized and rewarded by those who make decisions regarding appointments, promotions, pay raises and tenure. . .

The formal systems which organizations use to evaluate and reward the performance of their employees are critically important. Within American colleges and universities, especially the leading ones, it has been customary to use scholarly productivity as the primary criterion of evaluation and reward. Even in less prestigious institutions, where scholarly productivity is not critical, Trow's felicitous phrase, "Publish and Flourish," applies, since publication is associated with rank, salary, and election to positions of leadership. *Involvement in Learning* argues that those who excel as teachers will also flourish...

This proposal, of course, is much more easily formulated than implemented. Although an extensive literature now exists on the measurement of quality teaching, serious questions remain about the propriety, reliability, and validity of existing measures. Moreover, it is widely acknowledged that the objective of our doctoral programs is not to prepare faculty members to be excellent undergraduate teachers. The Ph.D. remains a research--not a teaching--degree. Students in traditional graduate programs often develop a trained incapacity to be excellent undergraduate teachers. They are encouraged to identify narrow areas of specialization and to focus completely on them. They are taught that the only true measure of a professor's worth is her or his list of publications. And they are indirectly encouraged to regard the teaching of undergraduate courses, especially introductory and other lower-level courses, as dirty work to be avoided whenever possible. Obviously, these lessons from graduate school exacerbate the difficulty of bringing about the reforms delineated in *Involvement in Learning*.

Organizational realities compound the difficulties. Academic departments are not subject to tight administrative control; relationships among departments are often characterized by conflict and competition rather than coordination and cooperation. Enrollment economics shape the fortunes of individual departments, just as they shape the fate of entire institutions. . . When faced with the prospect of retrenchment, professors will do what they consider necessary to preserve their careers, such as inflating grades, reducing course requirements, and spoonfeeding students.

Because administrators control the allocation of lines among departments (and other valued goods as well), they can exert a strong positive influence on teaching practices. They do this by communicating their desire to maintain departmental strength and curricular diversity, and by insisting that departments with declining enrollments compete for students by offering better and more rigorous courses. By making the retention of open lines conditional on demonstrable shoring up of deteriorating standards, administrators might well motivate professors to cooperate with their colleagues in cleaning up their act.

Of course, in order for this stategy to work, administrators would have to resist the temptation to "maximize profits" by reallocating lines to departments simply on the basis of strong student demand. Faculty in departments suffering from declining enrollments will need clear, unmixed signals and enduring support from the administration in order to adopt the sorts of reforms suggested in Involvement in Learning.

William Sadler, Professor, Bloomfield College

Before asking what we can ask expect of faculty, we need to realize who the faculty are. Most faculty members are now over 40, and, as the NIE Report indicates, many of them feel stuck. They experience symptoms of mid-life crisis, such as stagnation, frustration, disillusionment, and even alienation. Many faculty members are only part time. Finally, many have experienced a shrinkage of role, accompanied by a loss of power. Recommendations for faculty must take these factors into consideration if we are to manage properly the human resources of faculty.

One effective way to increase faculty involvement in light of these observations is to build on the recommendation to create "learning communities," and to promote collaboration. At Bloomfield, interdisciplinary faculty teams developed a successful Freshman Core Program. The experience promoted the development of innovative teaching strategies, increased interaction among faculty (which has improved morale), motivated faculty to do more scholarship related to undergraduate teaching, and promoted increased participation in governance and more involvement with students.

Working in teams on such a project encourages faculty to set high standards to improve their teaching. . .and assessment is vitally important to support that effort. Assessment of faculty performance means more than establishing accountability; it signifies giving accurate, appropriate feedback to teachers who try to improve. . . In addition to student evaluations, peer observations, and standardized pre- and post-tests, the Bloomfield Core faculty have put on demonstrations of teaching, used video tapes in faculty sessions devoted to the improvement of teaching, established proficiency levels for students and then analyzed the performance of students in individual and aggregate terms, and used clinical conferences to assess the effectiveness of innovative teaching tactics. These internal assessment procedures support both faculty involvement and high standards of instruction. They also provide effective feedback, help answer questions of accountability, and are very cost effective. But in order to work well over time, the demonstration of improved teaching must be supported by appropriate rewards, including recognition, promotion, tenure and higher salaries.

James Hearn, Professor, University of Minnesota

I would argue that there is a stubborn quality about the dominant organizational features that will thwart even the most well-intentioned and thoughtful efforts along the lines of the report recommendations. Resistance to such efforts will reflect disciplinary distinctions and research/teaching tradeoffs, as well as certain aspects of organizational power distributions and adaptation patterns. While such resistance might not be comfortable to reform-minded managers, I would argue that it is not without its salutary side.

Let me cover my resistance points in more detail. Built into American higher education at the university level is a thoroughgoing disciplinary base. Sociologist Burton Clark (1983) has commented that an indirect index of the cohesiveness of a campus community may be found in its number of coffee pots. As the disciplines have multiplied and uniformity in notions of "an undergraduate education" decreased, so, too, have the number of coffee pots multiplied. The faculty commons or lounge has been gradually replaced by the department lounge, and the notion of colleague was consequently redefined.

Given that pattern, the federation replaced the collegium as the dominant metaphor for campus governance. In a sense, the disciplinary base of organization provides American universities with both their primary strength and their Achilles heel. On the positive side, the innovativeness and productivity of the research enterprise is unparalleled worldwide, and the community service function is generally well-served. Graduate education, while not without its difficulties, also seems profitably based at the department level. Less clearly on the positive side, however, are the implications of discipline-based organization for undergraduate education.

The disciplinary base of university organization does not always serve undergraduate interests, or the interests of the society in broadly-educated cohorts of college graduates. Standards and processes in major programs vary significantly by department and, accordingly, the "output" varies extraordinarily. To the extent faculty are willing to think about undergraduate education, they are usually not too disturbed by this differentiation. Education is socialization, as well as knowledge transmission, and disciplines value their own distinctive norms of scholarship and styles of reasoning. Any attempt to define the appropriate outcomes of undergraduate education at the university level, much less implement an assessment program based on those definitions as desiderata, is apt to lead to an explosion of controversy. While controversy is not always harmful, neither is it always productive. To the extent universities encourage their faculty to turn their attention to undergraduate education, those institutions may also encourage their faculty to initiate or renew painful inter-departmental conflicts.

Similarly, to encourage faculty attention to undergraduate education may also be to encourage faculty to compromise on their other commitments. This is my second area of probable resistance. Because university faculty must attend to the incentive system that surrounds them in their departments and colleges, undergraduate education is rarely considered in much detail. The demands of research contracts, conference presentations, and publications intrude.

The status of undergraduate education may be reflected by our language. Alexander Astin has noted that it represents a "load" in the faculty vernacular (as in "teaching load," "advising load," etc.), whereas research is rarely spoken of so disparagingly. If teaching already represents a "load," and if faculty incentives and working conditions remain as constricted as many claim, what are we to think of the prospects for significant additions to faculty responsibilities in the arena of teaching, learning, and assessment? Do institutions wish to invest their faculty time in such a trade-off? The benefits of such an investment are appreciable, and so too are the risks.

Nevin Brown, Assistant Director, Office of Special Programs, National Association of State Universities and Land Grant Colleges

A key question here is how to prepare graduate students for teaching and involvement in a variety of higher education environments. Is there a need, for example, for teaching internships that are fundamentally different from those to which the prospective faculty members would be exposed in a variety of types of institutions of higher education?

Involvement in Learning calls for involvement of students in the research enterprise of the faculty member. . . In the public university, however, public or professional service - the application of knowledge in "real world" situations - is of equal importance [to teaching and research]. Service has been the most problematic element in the teaching-research-service "trinity" in public higher education; yet, as the nation's economy and society become increasingly dependent on, even engulfed by, the explosion of new knowledge and information, there is an ever greater need for the interpretation, translation, and "sorting out" of new knowledge for a variety of "user communities." As service becomes more important, involvement of students with faculty members in this "application of knowledge" would seem to be essential. Such involvement would heighten the students' awareness of the application of knowledge or scholarship in "real world" circumstances and, at the same time, would increase the attention of university faculty and administration to the close interconnections of teaching, research, and service.

J. Frank Thornton, Dean of Arts and Humanities, Houston Community College

Margaret Gullette of the Harvard-Danforth Center for Teaching and Learning has observed that "for many teachers, it is the presence of students that complicates their professional lives. . . " The subject matter-saturated college instructor of today believes that the knowledge he or she has assimilated during the long quest for advanced degrees needs only to be spoken in the classroom--to be projected by lecture to eagerly awaiting ears. Many are rudely awakened to the fact that students are not eagerly awaiting lectures--they merely tolerate them in a detached vacuum. Teachers need to overcome the adversarial relationship that exists in many college classrooms. The idea that the instructor is "lord of the classroom" must be supplanted with a more humanitarian approach, and, as Gullette notes, the profession must be rid of the notion that "the classroom should not be an entirely pleasant place."

Successful teaching is predicated on respect for students. In order to develop this respect, instructors must value students. This means that instructors must love not only imparting information but also writing recommendations, holding back their opinions in a brutally frank class discussion, and becoming totally selfless in the classroom. Many will have to work for years to achieve these ends . . .

But what will ensure that faculty will employ "active modes of teaching?" What incentives or procedural changes are necessary? What is the evidence that those incentives and changes will work?

First, greater emphasis should be placed on the recognition and financial remuneration of exemplary college teachers. We have great opportunities to do this in community colleges, as stipends from outside groups and organizations are often available as rewards for outstanding teaching. Second, student evaluation of instruction that provides information relative to course content, sequence, coverage, and textual materials can be a vital force in the improvement of teaching. . . Third, administrations will have to offer workshops and develop faculty leadership in terms of instructional innovation. . . This open, active leadership style on the part of administrations should give the needed impetus to change teaching strategies . . .

Denis Paul, Assistant Commissioner, New York State Department of Education

Since our goal is to adjust and modify the recommendations of the Study Group and to "develop guidelines for the practical tasks of implementing those recommendations," we may wish to consider ways in which financial rewards might be used as incentives for intensifying faculty involvement with students during the freshman and sophomore years . . .

I would not wish to understate the value of financial rewards. They have certainly been used well to stimulate research and scholarship. This is borne out by recent studies (e.g. Bennett and Johnson, 1979) which have shown positive correlations between research productivity and base salary and supplemental income at all types of institutions. . . . I would, however, suggest that we also examine some of the factors on which faculty are likely to trade-off financial incentives.

I would urge that we take care to examine the consequences of any recommendations we make. For example, setting up a special fellowship or a competition to stimulate interactive teaching may seem, at first thought to be an admirable undertaking. But it could have two possible effects, neither of which would be desirable. If the fellowship is sufficiently prestigious and demanding, only a small number will compete. If many awards are given, or if they are viewed as commonplace, they may not gain the attention of those who consider themselves the most talented. By either scheme, we enfranchise some and alienate others. Our goal should be to devise a system that embraces the whole institution.

4. The Student Perspective on Involvement

Involvement in Learning makes a number of recommendations based on assumptions concerning student behavior as opposed to motivation. Basically, the report posits the notion that students can become involved in academic work through means other than their interests in particular courses, majors, or whatever they see as the most efficient route to a secure, well-paying job. So we asked student presenters to think about the college environment and the processes of teaching and learning, and to advise all of us on what keeps them involved in academic work and what is most likely to increase the quality of effort they make in learning. In the process, they wisely considered what turned them off to learning at one point or another during their early years of college, and offered their own recommendations for increasing student involvement.

Erin Eagan, Student, Radcliffe College

Any time someone shows an interest in a student as a person or in the student's ideas and work, the student's enthusiasm for the situation at hand will increase and, as a result, so will the level of involvement. In the case of academics, this is especially true when the person showing an interest is perceived by the student as having status in the academic community--a professor, a teaching fellow, an administrator or an advisor or an upper classman.

At first I was stumped by the request for an example of what type of specific event had turned me off to learning during my first two years of college. . . When I enrolled, I planned to get my undergraduate degree in science and eventually go on to get an M.B.A. So, I chose an introductory chemistry course and an introductory economics course to get me started on both. . . . The chemistry course was large--well over 200 students--and I had direct contact with only the graduate student teaching fellow of my weekly lab session. His command of English was not very good, and the feedback we got on our exams and assignments was limited to numerical evaluation. He often seemed as eager as we were to escape the lab sessions as early as possible. The economics course, on the other hand, while also very large, was taught mainly in sections of about 25 students. My section leader took the time to learn people's names early in the semester and remembered which students matched up with which in-class comments and ideas. . .

I think that the importance of taking students and their ideas seriously is a point that should be made. The college years, and especially the first two, are a time when most young people are really beginning to forge their autonomous selves. Most of the people around us expect us to begin acting like adults and making informed decisions. And yet, in some cases, students are not treated as though they, and their ideas, are valuable. They are often shuttled through large, impersonal classes. They are nameless faces to many professors, and there are not always enough support sources to help get them through the tangle of simultaneously navigating college and growing up. . . If the academic environment does not provide students with self-reinforcement, they will search for it in their other activities and you won't see them getting turned on to academics and getting involved.

. . . By expecting the student to participate actively in the education process, and by challenging the student to take on new and more difficult assignments, a faculty member is implicitly expressing his or her faith in the student's abilities. While the student may initially moan and groan at having to try something new and unfamiliar, the experience of working on such an assignment and the ultimate sense of achievement when it is completed will stimulate the thinking process and student involvement more than any lecture. High levels of expectation from those you respect tend to lead to higher levels of self-expectation and achievement.

Kim McFann, Student, University of Baltimore

. . . Although a basic liberal arts background is fundamental, this should not preclude the integration of classroom theory with practical problems encountered in the real world. Such a synthesis can best be accomplished, in my experience, by confronting the student with a "real world" situation that requires application of principles and theories in order to arrive at a "solution." I place "solution" in quotes because of the college's over-emphasis on analysis without developing a student's ability to synthesize. Integrated learning can be enhanced by bringing practitioners in on classroom discussion of these solutions; it can also be accomplished effectively through a well-structured internship.

The college can also encourage student involvement by providing students with opportunities to apply what they have learned in journalism, marketing, advertising, management, administration, political science, computer science, information systems, achitecture and almost any other field through student publications, student government, and other student projects. This is especially true if faculty members are supportive and willing to advise, guide, and assist students in making the transition from theory to practical application of the problems and issues that arise in the context of such extracurricular activities.

The quality of student effort could be increased through a process of teaching students to think as professionals. Too many times, students are given the impression that what is important is to learn what will be on the test. The more valuable learning asks the student to assume the role of someone actually working in a field and to analyze a situation or problem from that perspective. This method of teaching requires the student not only to apply theories and principles but also to use research skills and demonstrate ability to communicate through either a written report, an oral presentation, or both. Testing, especially through multiple-choice examinations, does not develop the much needed and too often neglected ability to communicate ideas and analyses to other people in a manner that is both clear and comprehensive.

Institutions should consider requiring students to include a research methods course in their freshman year of college. The course would be most effective if students were allowed to choose any topic of interest and then were taught methods by which to locate, gather, synthesize, analyze, and report the information available. . . Research is central to continued involvement in the pursuit of knowledge. . .

Marcie Kendall, Student, Hood College

How do we solve the problem of apathy and increase student involvement? Other involved students and faculty, particularly during the freshman year, can help.

As freshmen, many students are overwhelmed by the idea of talking to the President of the college, the Dean of Students, or the chairperson of a department. If such interaction is encouraged during the freshman year, the first lines of communication will be open.

The assignment of an appropriate faculty advisor during the first year is very important. . . If the advisor is enthusiastic about a class, this will be reflected positively in the student's attitude in that class. Even the student who enters the office with confidence and a filled schedule card will usually welcome criticisms and suggestions . . . If a student is having a problem, a short note or an encouraging phone call from the advisor will be well received. Most students want this interaction, but are sometimes hesitant to be assertive.

Of course, this interaction between students and faculty should not end with a orientation course or with the freshman year. In fact, the student/advisor relationship should become closer as the years progress.

As a member of numerous faculty committees, I tried to give as much student input as possible to improve our education . . .Through these committees, I have heard the frustration of faculty and administration and have helped make students aware of them. For example, the faculty was concerned that students were not taking course evaluations seriously. But the students did not know how important those evaluations were to the faculty. We refrained from writing comments because we feared that doing so would affect our grades. As suggestions can provide faculty with an insight as to what we want improved, students are only hurting themselves by not being honest.

5. The Legislative and Trustee Perspective

Since attrition rates are greatest in the first two years of college, it is not surprising that the NIE Study Group recommended a "frontloading" strategy that would shift resources and effort to first and second-year students. However attractive the particulars of that strategy may sound, and however much they promise concerning increased student involvement, learning, and retention, they have secondary consequences which may not be so beneficial. We asked state legislators and trustees who are often responsible for the decisions necessary to the recommended reallocations to map those secondary consequences, to consider the potential differences in consequences for public and private institutions, and to speculate on the policies that would be necessary to adjust this "frontloading" strategy for maximum benefits.

William Lawrence, Representative, Maine State Legislature

College instructors generally look at their work from two separate and different points of view. Some consider themselves repositories of knowledge and act as dispensers of that knowledge, with only periodic examination to ascertain how much of it will return verbatim. Others like to feel they are catalytic agents causing unpredictable changes in the minds of students. This latter group would not be included in the results of a recent survey of freshmen students which listed "being boring" as the third worst sin a professor can commit--right behind showing favoritism and publicly insulting or embarrassing a student. There is a paucity of catalytic teacher agents in our institutions of learning. If a faculty is fortunate to have a few, the odds for "frontloading" to benefit students and to increase retention are better than on most campuses.

Increased student involvement in the learning process and the assignment of a college's finest instructors who care passionately both about their subject matter and about their students should certainly result in positive effects upon the passive or reticent students in freshman and sophomore groups. The desired results can be effected if they are borne out of collective ideas of a faculty and are nurtured by their enthusiasm and dedication to students. It will be a slow, painstaking, and never-ending task. We all know that organizational changes, regrouping or elimination, are possible results of a search for quality. It is the task of each faculty and college community to define quality and to explore all avenues to clarify the teacher's mission in today's academic community.

This is a time when the citizenry places education as a number one priority. They recognize that the country's educational leanings have become increasingly vocational, but show a willingness to support advanced student knowledge, intellectual capacities, skills, self-confidence, leadership, social responsibility, and understanding of cultural and intellectual differences. All of these can be fostered in four-year colleges that recognize the importance of first and second-year students getting involved in learning.

David R. Carlin, Jr., Senator, Rhode Island State Legislature

The plain fact is that adopting a frontloading strategy will cost plenty of money, and the taxpayer will have to pay the lion's share of such a strategy.

How will it cost money? Let me count the ways.

(1) If full professors replace teaching assistants in introductory courses, for instance, it is absurd to expect that these professors will be freed up to perform this meritorious service by having the now-unemployed TA's take their place in graduate seminars. Front-loading, if it is to take place, will require not simply the reallocation of old resources, but the allocation of new resources. And that means more money.

(2) Involvement in Learning notes that, in the last ten years, the purchasing power of faculty salaries has declined by about 20%. It is reasonable to assume that professors have compensated themselves for this cut in pay by reducing their involvement in the teaching process, both on its formal and its informal sides--especially insofar as the students in question are first- and second-year undergraduates. . . . If we are serious about getting faculty to spend more time with students, both inside and outside the classroom, we have to reverse that slide in purchasing power.

(3) If University A adopts a frontloading strategy while University B continues in its bad old ways, A will be at a competitive disadvantage when seeking to hire and retain faculty. Other things being equal, why should Professor Jones, a rising academic star, go to A, where he'll be burdened with large numbers of dull freshmen and sophomores who have little or no commitment to his subject, when he could go to B, where he'll have the pleasure of teaching only graduate students and upper-level undergraduates? To draw him to A, we'll have to see to it that things are not equal, that is, we'll have to supply him with more money--or at least with more of the services and facilities that only money can buy.

(4) The report points out that in 1980, 41% of all higher education teaching was done by part-timers. And the proportion of part-timers appears to be higher for first- and second-year students than it is for third- and fourth-year students. . . . . If frontloading means

anything at all, it means replacing these part-timers with full-time faculty members. But this, too, means more money.

(5) If all the above difficulties can be overcome--and if the front-loading strategy actually works--success will bring us yet another difficulty. Drop-out rates will drop, retention rates will rise, and greater numbers of students will stick around for the second, third, and fourth years. This, too, will mean more money.

Front-loading, in short, is a high-cost strategy, and high-cost strategies are never easy to undertake. But there have been moments in the history of the Republic when a willingness has existed to spend greatly increased amounts of public money for public purposes. The present, it need hardly be said, is not such a moment. . . The proponents of front-loading should sell their program to college and university decision makers, on the one hand, and to governors, state legislators, and taxpayers, on the other. Then, when the pendulum swings back in the direction of spending the public's wealth in a more public-spirited manner, front-loading may be one of the first programs to benefit.

Joan Kenney, Vice Chair, University of Nevada System Board of Regents

For legislators and trustees, class size is very important, especially in the first and second years of college. This is where public institutions, with their high student count, can fall down. I would recommend that advisors work to see that all students have at least one small class during their first and second years so that students can have the advantage of close interaction with a professor. This will do more toward exciting students than anything else.

At the same time, legislators and trustees should strongly recommend that all remedial classes be taught at community colleges. Only when remediation is fully behind them will students be free to pursue their university education to its fullest. Most universities and their surrounding community or junior colleges are capable of making such arrangements. . .

To insure the success of the proposed "frontloading" strategy, a pilot program should be undertaken at both public and private colleges or universities. The results should demonstrate the comparative effects of this approach on retention, and should also allow us to see the degree to which students become involved in campus activities.

RECOMMENDATIONS AND STRATEGIES

Participants in the round tables on "Involvement" were as conscious of the barriers to implementing change as they were creative in focusing on issues such as the use of research on higher education, advisement, and the special consideration of minority students. Involvement is an engaging subject, and the theory of quality-of-effort upon which it is based is one with which few quarrel. But participants did express some skepticism as to whether some of the strategies actually work, which is why they emphasized research, the building of assessments and evaluations into every effort to increase student achievement and retention in the early college years, and the careful piloting of strategies and innovations.

Discussants also were very conscious of the bureaucracies, internal empires, and collective bargaining agreement clauses that often hinder the necessary faculty development and the infusion of creative reward systems. "We must publicly announce the mortality of empires," one of them noted, with great confidence in the effects of propaganda.

The recommendations and amendments offered in these round-table discussions were generally concrete, but the sense of implementation strategies was not. One example (not included below) was the suggestion to develop a national student tutor pool as part of the College Work-Study Program under Federal financial aid. Students, it was proposed, would be hired in specific areas of expertise, and would visit one or more campuses on a regular basis during the year. This is an intriguing notion that meets the theory of involvement for both the tutors (a public service alternative to research participation) and those they would serve. But even casual reflection would reveal how complex this particular undertaking would be. One might have hoped for some technical advice on how to develop specific, manageable ways to implement such an innovation, and hence persuade the powers that be to consider the proposition seriously.

The following recommendations focus, for the most part, on strategies that can be undertaken by individual institutions, small groups of institutions, and individual faculty members.

The Knowledge Base

1. The new national research centers on higher education (at the University of Michigan and the University of Maryland) should develop and offer annual seminars for college administrators at which the most significant research findings on improving undergraduate education would be presented and discussed, and at which sets of findings appropriate to different institutional types and circumstances would be developed. Specific topics suggested for these seminars included:

- Persistence/attrition in relationship to support systems and active modes of teaching;
- Criteria for establishing priorities for program funding;
- Case studies of student academic success in relation to organizational features of different kinds of postsecondary institutions.

2. Each institution should develop a three-dimensional profile of its entering freshmen and adjust approaches to curriculum and instruction in light of these profiles. This action does not mean abandoning requirements (in some cases, it may mean increasing requirements) or standards of performance. Instead, it means developing strategies that are directed at the typical, not at the atypical. Faculty and deans should be involved with institutional research personnel in developing

these profiles, thus insuring a commitment to future adjustments to curriculum and instruction.

3. The higher education community needs to develop a special community college version of the survey of entering freshmen currently conducted by the Cooperative Institutional Research Project that will include a special follow-up for students willing to participate. The purpose of the survey would be to map changes in educational and personal goals, reasons for pursuing education in a community college context, reasons for leaving college, prior education, etc. The target population, should be a representative sample of the different status of students found in community colleges, including part-time degree candidates, certificate candidates, and occasional students. The 1990 census might offer another way to get at some of this information, and certainly, to improve our understanding of the long-term patterns of "transfer."

"Frontloading"

1. Since the most effective time for "frontloading" is before students arrive as college freshmen, faculty who teach freshman-level courses should spend some time observing and talking to potential college students while they are still in high school. At the least, each affected college department should have one representative in high schools who can report back to the department on a regular basis.

2. Following #1, institutions of low selectivity, in particular, should offer "refresher/buffer" programs between high school and college modeled on those of the old GI Bill process, e.g., a six-week summer program with final assessments that are fed back to students and their advisors, and that become the basis for placement and decisions about majors.

3. The teaching duties of administrators should be confined to freshman/lower-division classes and to classes small enough to foster intense involvement of the administrator-as-faculty-member with the student. It was argued that otherwise the administrator would teach large classes in which he/she would be too distant from students to obtain detailed knowledge of their talents, limitations, and perceptions of the learning environment.

4. In assigning faculty to teach and/or work with freshmen, college administrators should carefully consider the cultural background and styles of those faculty, particularly if they are comparatively recent immigrants to the U.S. with restricted facility in English. Additional guides to staffing lower-division courses in institutions with a significant percentage of part-time faculty included:

- Provide part-time faculty with training in matters of teaching, assessment and advisement, and provide them with reading materials on such subjects as the academic workforce and governance, student development, etc.

- Use external career men and women as supplementary staff, and visiting resources in lower-division courses;

- Have each affected dean or department chair develop an index of degrees of campus involvement for part-time faculty and do not use those faculty with low scores on the index for teaching lower-division courses.

5. There was a natural consensus that reallocation of resources toward serving lower-division students should not damage the upper-division. No one wants a zero-sum game. Conferees suggested that individual institutions first review their fixed resource base and identify programs with under-funded, lower-division capacities in relation to basic strategies for student involvement, such as the advisement system.

Advisement and Orientation

1. As an alternative to the traditional orientation to college, conferees suggested a more academic approach: a mini-course on the history of higher education in the United States, involving research and writing assignments, and stressing topics not normally covered in orientations such as the professoriate, the organization and resources of postsecondary institutions, institutional and system governance and other issues.

2. Registration procedures for freshmen should seek to minimize frustration and confusion. Specifically, conferees suggested:

- Reserving adequate numbers of seats in lower-division classes to meet freshman demand, even if that means closing sections to upper-class registration before those sections are filled;

- Developing a computer-assisted advisory system in which data on student backgrounds and abilities are matched to course objectives, and training both faculty and upper-division student advisors in using a computer-assisted advisement system.

3. Concerning post-registration advisement, conferees suggested working with small groups of freshmen (no more than 10) who could meet with faculty members and administrators, thus allowing for more frequent contact. At the same time, they felt that peer advisors for lower-division, non-traditional, and international students would be more effective than faculty.

4. In residential institutions, we should strive to increase student/faculty contact by assigning one faculty advisor per dormitory and by asking faculty teaching lower-division courses, in particular, to hold office hours in the residence halls. In commuter institutions, similar ends could be achieved by assigning faculty on a rotating basis to a special room on campus for advisement, counseling, and trouble-shooting.

The Involvement of Minority Students

1. Minority students in colleges need role models; they need to see older minorities in academic careers. This is particularly true for blacks and Hispanics. It was agreed that we must move more minority students into the pipelines leading to academic careers, but the task of identifying and encouraging those students was acknowledged to be a major challenge. It was suggested that we start with identification. Just as athletic coaches have developed national banks of outstanding high school athletes from which they recruit, so should each of the academic disciplines, acting through their professional associations and learned societies, develop national banks of promising minority high school students to recruit into academic careers.

2. Conferees recognized that students from minority backgrounds and/or second language backgrounds have had difficulty adapting to the environment of most colleges. Hence, they can become too easily discouraged. Conferees thus recommended a dramatic expansion of early outreach efforts that involve these students in appropriate aspects of college life while they are in high school, and longer or special orientations for them before starting the freshman year.

3. Those responsible for the special advisement and counseling of minority students should study practices of academic work and organization that have proven successful not merely in terms of retention but also in broader measures of academic achievement. For example, studies of a small group work model in which one student is designated as the "delegate" from the group to a faculty member, who takes questions developed by the group to the faculty member and who is responsible for conveying and explaining the answer, provide evidence of considerable improvement in student learning, particularly when members of the group are from similar academic and cultural backgrounds.

Active Modes of Teaching/Learning Communities

1. In introductory courses in both the sciences and social sciences, the discipline can, and should, be shaped around the generation and testing of hypotheses. This strategy touches all students (therefore there is no opportunity for avoidance behavior) and inherently involves dialogue and feedback.

2. Colleges should strive to create "teaching companies" to link upper- and lower-divisions. The faculty for these "companies" could be drawn from different disciplines to identify the critical skills and knowledge that students must develop for interdisciplinary perspectives, and tied to the key intellectual domains of literary/cultural heritage, empirical science, writing, and mathematics. An institution could then match the teaching companies with groups of students selected on the basis of representative diversity rather than academic major. The teaching company would be responsible for developing and using criterion-referenced assessments of the critical skills and knowledge to which the faculty has agreed.

3. Conferees observed that the stock recommendation designed to increase faculty involvement is to change (or balance) the reward system. The problem with this strategy is that of validating quality teaching. This problem is often compounded by collective bargaining agreements. It was thus suggested that a "triangulation" measurement of teaching effectiveness be developed and implemented that would cover: (a) improved student assessment of courses (including both essay and quantitative assessments); (b) peer observation based on public criteria; and (c) measures of student learning. The last is admittedly the most difficult to include in such a system unless departmental or course criterion-referenced examinations are developed and used.

II. EXPECTATIONS AND STANDARDS

> "This second major condition in effective learning, high expectations . . .includes graduation requirements (the 'what' of learning) and standards--a category of expectations that refers to the level of performance expected (the 'how well' of learning) . . . . When educators expect too much--when we as teachers are unrealistic--student learning and persistence suffer. When we expect too little, we will seldom be disappointed." --Involvement in Learning

All of the national reports on higher education were motivated, in large part, by evidence of lower expectations and standards across the entire system, from the open-door community college to the elite private research university. In different ways, all the reports recommended that institutions be publicly explicit and detailed in their expectations for student academic performance so that students, their families, and others would know that the degrees we award stand for college-level learning.

The phrase, "college-level learning," lies at the heart of the discussion, for in an era in which so many of the courses offered by colleges are either explicitly or implicitly remedial, we wonder how faculty and administrators have defined the standards of content and performance that are worthy of college credit. The phrase itself indicates a shift in both student and institutional expectations that should take place at that great divide between secondary and postsecondary education, but the definition too often eludes those responsible for academic policy. For that reason, in part, we asked participants at the round table discussions to consider how "college-level learning" differed--substantively and procedurally--from the learning that precedes it. Thus, as a logical extension of the first question, participants were also asked to define what the reports never stated explicitly: how to treat remedial courses and programs.

Involvement in Learning also called for a "warranty" of degrees by supplementing the credit system "with proficiency assessments in both liberal education and in the major." It was therefore appropriate that round table participants contemplated questions such as the ways in which a "warranty" would affect student expectations, faculty behavior, and administrative actions in both four-year institutions and community colleges.

The following excerpts from the prepared remarks set the tone and terms of the discussions and recommendations that followed.

1. Defining "College-Level Learning"

Frances Fergusson, Vice President for Academic Affairs, Bucknell University

College-level learning appears . . . to have much to do with liberal education: with the development of the capacities of analysis, problem solving, communication, and synthesis. Yet, no matter how frequently educators preach these laudable goals, students . . . think of "college-level learning" in terms of specialization, credentialling, and mastering skills needed to enter specific careers. Most colleges and universities have responded by removing many general education requirements and asserting that students can develop analytical and communication abilities within frequently narrow and specialized courses of study.

In the past decade, there has been a progressive separation of skills from content. Writing centers and programs have increasing power in our colleges, claiming that analysis, effective communication and clear thinking can be gained from writing in any context . . . Writing and skill requirements, both stressing functional efficiency, have often replaced general education requirements. But such requirements do nothing to guarantee that what is being analyzed, solved, and communicated has any significance, historicity, or contact at all with the broader problems of our past and present cultures.

If, therefore, we were to describe the current state of college-level learning, we would have to admit that, for many students, it represents a narrowing perspective from that of their secondary school education. This is not to suggest that colleges fail to provide what is desired by most students: skills are improved, and the content of a discipline is explored and even mastered. Because of these gains and because of the natural process of maturation in young adults, students often achieve self-confidence and personal direction. Most students do not, however, receive a liberal education that provides an integrated sense of how their skills and knowledge fit into the larger world.

"College-level learning" should be based in the liberal arts and sciences. Its exact nature will vary with the local circumstances of an institution, its purpose, and its students. "College-level learning" at a community college will, of necessity, be different than that at a selective liberal arts institution. But the broadening content and effects of the liberal arts should not be reserved for a limited elite. Liberal education is not a useless interlude before students get down to what, in their initial view, is really important: the acquisition of skills for a career. It is, instead, the fundamental preparation for all professions, the study of which will allow individuals to gain perspective on themselves and on the society in which they work and participate. Such a statement has become a cliché. It is also, I profoundly believe, a truth.

I spoke earlier of the tendency to assume that skills may be acquired without reference to content. By definition, this is true: a well-written journal can be as skilled in its writing and communication abilities as the essay on Aristotle's concept of friendship. But the journal will only emerge when the content is important and broadening, when the student sees, reflectively, her actions and beliefs as part of a larger society and culture. Content matters, if the level of our personal development, our public discourse, and our societal actions is to improve.

What, then, is appropriate to college-level learning? . . . the NIE report [identifies] one often forgotten ability that seems particularly important. That ability is synthesis. We have frequently ignored synthesis in favor of its more directed cousin, analysis and by doing so we miss an important opportunity. High school students, with their curiosity about how things work, can be taught to analyze, but they are more likely to accept the authority of their teachers. College students are at a stage in their personal maturation when analysis for individual understanding is important, but they also wish to put together the parts of their experience to become mature, independent adults. By emphasizing analysis, we may well have created a generation of students who are better at pulling apart than at putting things together. The integration of knowledge can lead to the integrated self . . . Synthesis is the hardest ability to develop and it relies on a prerequisite breadth of knowledge acquired through a truly liberal education. . . College-level learning is, in essence, the move towards the integrated self within society.

Alison Bernstein, Program Officer, The Ford Foundation

One way of asking what college-level learning is would be to consider the courses that are not offered by most high schools, e.g. logic, anthropology, Latin American history, art history, history in general (most high schools teach social studies concepts without chronology), real economics, political science, certain forms of math, calculus, etc. Because most students only encounter these subjects in college, can we assume that there is something qualitatively different about them?

I think so. Each offers a conception of reality. To learn at the college level, students should get at those conceptions with original texts, not mediated texts. To know that they are learning at the college level, we should abolish T/F and multiple-choice questions on final examinations. Faculty should expect to grade students on the quality of their thinking, not on the parrot-like ease with which they can answer oversimplified questions.

College-level learning is synonymous with continuous and disciplined writing. Today, students do not write for us. Instead, they engage in oral expression. But class participation is not the same act as writing. It is ephemeral, easily forgotten, and (unless the student wants to be a traveling salesman or talk show host) not the most important language skill. Writing disciplines thinking in a way that "speaking/blurting" does not. College-level learning demands both precision and comfort with the written language as well as with the spoken. It is very strange: we somehow agree as a nation that kids have a right to read, but they should also have *the right to write* so that others may learn from them.

College-level learning is about identifying and manipulating theories, concepts, and abstractions. John Munro developed a 500 word "college vocabulary list" when he was at Harvard, and took it to teach at Miles College in Alabama. That list incorporated the idea that words represent concepts that students intuitively know but had no name for, words like "empathy" or "materialism." I would advocate that faculty task forces review Munro's list as a starting point for understanding college-level learning. They might choose 50 key phrases or concepts from ten arts and sciences disciplines, and then look at Munro's list to see where the two agreed.

College-level learning should require deep engagement with the reality of a culture different from one's own, an engagement that might involve historical distance, geographical and language distance (though one can learn foreign languages as *skills* better in elementary school, at the college level, foreign languages should be more than mere skills), distances of gender, class, and race. In *To Reclaim a Legacy*, William Bennett misplaces his emphasis when he writes, "the core of the American college curriculum should be the civilization of the West." If that is the case, what is the obligation and role of the high schools and earlier education? What have they been up to? Isn't that where one should learn one's own culture? College level learning demands something more, because college-level learning requires the testing of realities students *already* know against competing realities. It also demands an understanding of Western Civilization as *dynamic*: there are changes over time, and the West is immersed in a worldwide context. That is something we must regard as college-level, if not before!

Finally, I think college-level learning is about generating questions, not finding answers. I therefore urge that we abandon short answer, machine-scored tests and simple skills courses. If we begin to raise our expectations of what we can do as college teachers, we will also be passing an important lesson to our students--that they can do better, too.

Gary Chamberlin, Director, Arkansas Department of Higher Education

Some among us regard college-level learning from a procedural standpoint--as the point at which students are expected, all at once, to become adults, to evidence mature attitudes about their education, and to show us that they are self-directed learners. They are no longer children, we say, and they no longer need or deserve our pushing or our encouragement to learn. It's a competitive world and a somewhat harsh world, we say, and students might as well begin learning that. . .

In our enthusiasm for liberating students and paradoxically forcing them to be independent, I fear we have allowed our procedural expectations to become excuses for abandoning students. I get many calls from students and parents, complaining about one thing or another; but those calls are all pleas for someone to care. Unfortunately, we in higher education have a reputation for indifference--or even arrogance--toward students, especially those in the first two years of college. So to help students achieve college-level learning, we have to change our procedures and our behavior.

In terms of substance, college-level learning should be defined in the classroom. Too often, we argue about specific subjects in this regard. Yesterday morning, I was called before a legislative committee to explain why driver education was taught in a few of our colleges. Those institutions had been offering driver education for 30 years, and the legislature just discovered the fact. I explained that the course was part of the certification program for driver education instructors. While it appears that they were satisfied with that explanation, they still may have questions in the backs of their minds.

Whether or not driver education should be taught in colleges is not the question we should be asking about "college-level learning." The real question is what we expect of students in classroom learning experiences, regardless of subject, and what else must be achieved before conferring a Bachelor's or any other degree. . . Not long ago, I was involved in some public hearings with businessmen and the general public. None of the businessmen complained that college graduates in accounting did not know accounting, that college graduates in mathematics did not know mathematics, or that college graduates in engineering did not have solid backgrounds in their major field. Rather, the employers complained that, regardless of their major field, college graduates lacked the ability to communicate, to analyze situations, and to identify alternative solutions, and lacked, too, the human relations skills necessary to deal effectively and maturely with other employees and customers. It is possible to define and to develop these abilities in individual classrooms, hence raise our expectations for the substance of college-level learning.

2. The Status and Treatment of Remedial Education

Jeanette F. Reibman, Senator, Pennsylvania State Legislature

The need for colleges and universities to provide remedial education is not new. What is new is our awareness of the seriousness of the problem. . .

According to a recent report on remediation in higher education issued by the National Center on Education Statistics (NCES), in 1983-84, 16% of all first year college students were enrolled in a remedial reading program, 21% in remedial writing and 25% in remedial mathematics courses. Some 63% of the postsecondary institutions included in the survey reported at least a 10% increase in such courses.

In 1971, when Pennsylvania passed its Higher Education Equal Opportunity Act, the presumption was that a small proportion of each freshman class--very candidly presumed to be mostly minority and extremely poor whites--would require some help in reading, writing, and math. These assumptions are clearly challenged by the NCES data. The problem is more severe than we had presumed, and affects a wider range of students than we had acknowledged earlier to be included. . .

I very strongly believe that the crisis of remediation in higher education will ultimately be resolved by improving basic education in our schools. However, the full impact of this effort will not be witnessed until today's third graders become college freshmen. I, for one, do not believe that we can sacrifice a decade of college freshmen while we wait for the Class of 1998 to arrive. . .

The question of who should be remediated, and how, is essentially an institutional question: it should not be a matter of public policy. I believe that colleges should provide "skills enhancement" not only in reading, writing, and math, but also in other basic areas of language arts and sciences. . . Colleges should admit students who have the potential to succeed but who may lack some of the basic skills necessary to make that success likely. These students should be remediated in non-credit courses.

Matthew Feldman, Senator, New Jersey State Legislature

I do not believe that the need for remediation will disappear from our campuses in the foreseeable future. So, what is the role of remedial programs in the college curriculum?

On one level, the response is quite simple: a person should not receive college credit for pre-college level work. These programs are not part of the college curriculum and it is a disservice to the students involved to pretend otherwise. It is imperative that we give students every possible opportunity to earn a college degree; it is counter productive to reduce the value of that effort.

On another level, however, the issue is less clear. . . we are in the process of reexamining what constitutes "basic skills." For example, even before 1983, a former Commissioner of Education in my own state wanted "computer literacy" included among these basic skills, and many of the national reports echo that sentiment. Yet this is but one of an array of "essential" skills. I find this a matter of some concern.

As a nation, we tend to mistake goals for standards. As we look at the proposed high school curriculum requirements in the Carnegie Foundation's, report, High School, or the College Board's, report, "Academic Preparation for College," I begin to feel that we are, in fact, at risk of establishing an elitist system of higher education to the detriment of us all.

As we increase the demands placed upon both high school and college students, the division between college and pre-college level work may well become blurred, and the need for remediation may well intensify--or become irrelevant. Before we determine what, in the curriculum, deserves college credit, we must be certain we understand and agree upon the role, function, and very nature of a college education in a democratic society.

Linda Paresky, Trustee, Simmons College

In response to the questions on remedial education, I offer two opinions from Massachusetts: one from our large public three-tiered system and the other from the private sector. Each one represents a perspective, not necessarily the entire public or private sector.

Here are some questions you may ask yourselves when listening to the two perspectives: does the size or scale of the institution(s) limit, direct, or make possible different approaches to remediation? Are the semantics or reality of remediation different in the public or private arena? Is the concept of remediation different? Is the philosophy of credit worthiness different?

The whole issue of remedial education is extremely complex and is beset by a number of political, racial, social, and economic considerations. In the public sector in Massachusetts, we have recently adopted admissions standards for our baccalaureate institutions, while our community colleges remain open-access. In theory, at least, the community colleges should be doing the bulk of the remedial work because they generally have the better faculty and facilities to handle this task. The baccalaureate institutions should, as a consequence of their new admissions standards, reduce their remedial offerings.

The focus of this perspective is in opposition to granting graduation credits for remedial work at the college level. A baccalaureate degree signifies, at least in theory, the achievement of certain skills associated with a college education. Given that definition, remediation simply does not apply. However, one of the social problems that emerges is the "tracking" of disadvantaged youngsters, particularly minority youth, into the community colleges. Numerous minority educators resent this approach because it continues to deprive minority youngsters of "equal educational opportunities." Some minority educators say that all youngsters should be admitted to a baccalaureate experience and be allowed to fend for themselves. However, that approach may program these students for failure if they are underprepared.

An even more basic question is the meaning of remediation. Academic departments cannot agree on what they mean by the substance of a remedial course. Some colleges offer three levels of remedial work; others offer two. The "college-level" course often uses a text that is geared to tenth grade reading ability. Also colleges often grant credit for remedial work in different ways. Some give partial credit for a lower-level remedial course and full credit for a higher-level remedial course.

Remediation, as an idea, assumes that there is something called "preparatory-level work" and something called "college-level work." As the NIE report makes clear and the more recent AAC report underscores, we unfortunately have lost any definition--if indeed it ever existed--of that which clearly distinguishes between pre-college and college-level academic work.

We should not confuse the part for the whole. "College-level" work calls for certain abilities: abilities to distinguish between fact and hypothesis, between evidence and inference, between logical speech and confusion. "College-level" work implies not only the ability to think critically but also that the student is developing the ability to decide what to think critically *about*. Those who don't write well or compute well are those who may not be thinking in orderly, sequential, or disciplined ways. If a student is challenged to think through an issue carefully, and then asked to write about it, she might make some sense on paper. With time and support, the grammar and spelling will come. Understood in these terms, remediation is *broader* than mastery of certain linguistic or computational skills: it is part of the process of general education. "Remediation" thus refers to a college's efforts to raise the clarity of student thought and expression to the level one might expect of a high school graduate.

A private college undertakes an implicit contract with a student it admits: the student will be educated to the level of the baccalaureate degree *given her situation* at the time of admission. The college realizes that students are socially and academically diverse, and that each has characteristics that will allow her to give something of her talents to the community and to fulfill some of her needs. Her needs may be severe enough in certain areas to be called "remedial," and such is the case today among a majority of entering college freshmen.

If we try to sort out students in need of remediation from other students, we must do so sensitively in order to avoid creating a two-tiered or shadow curriculum; and we must insure that colleges generalize their responsibility for remediation and not compartmentalize it by department or instructor. Indeed, from this perspective, the entire college community shares responsibility for preparing its undergraduates for the award of the baccalaureate degree.

3. Can We "Warranty" the Bachelor's Degree?

Milton Greenberg, Provost, American University

We have a great deal of information on how people learn. Studies do exist on how to teach. We do have material on good management styles. Examinations that test achievement and knowledge and potential do, in fact, exist. We are not treading unknown or mysterious paths. Indeed, to pose the question of whether we know what we are teaching and whether we can inform the student and assess his or her achievement puts every teacher who cannot answer affirmatively in a most questionable position.

The methodology does exist to move towards the desirable warranty, but it will take patience, understanding, and leaders who understand the impediment to bring it all about. Do we want to bring it all about? Specifically, can we and should we provide a warranty?

There is a school of thought that cynically suggests that the consequences of every reform movement will be the reverse of its intention. I fear that may well be the case here. There will be pressure toward sameness among colleges and universities. People are more apt to accept a testing procedure applicable to a wide constituency. Would we accept the medical or bar examinations established by one school? That students will concentrate on achieving passage of proficiency assessments appears obvious.

I fear, too, that the supposed resultant benefit advocated in *Involvement in Learning* that course selection will be driven by proficiency requirements "and discourage choice of the frivolous" will instead result in the elimination of major elements of the fine arts, physical education and new pathways to liberal learning. Will we be so interested in the outcomes that we will be willing to award baccalaureate degrees to anyone who can pass the proficiency exams without taking any courses at all?

How will the warranty impact on major state universities or on doctoral degree granting institutions? Size alone can condition the likelihood of success; it is easier to imagine fuller application of *Involvement in Learning* in a small liberal arts college than a major state university. It is also difficult to imagine adding to the work of graduate school professors many of the elements of *Involvement in Learning*. The likely result will be an even greater division between graduate and undergraduate instruction, with resultant tiers of prestige. Further, on a large campus, the concept of curriculum has little meaning beyond one's narrow discipline, and I have doubts that the current generation of the professoriate can engage the messages of the report.

From the standpoint of an administration seeking to reduce costs generated by complex and overextended curricula, the plan could prove valuable. Indeed, we might be able to go back to the days when we knew exactly what courses, how many sections, and how many teachers and rooms, are needed to provide the path to graduation. The resultant shrinking of the curriculum would be accompanied by either a reduction in faculty size or dramatic shifts in faculty expertise. One might well ask whether so tempting a scenario for college and university administrators can possibly be good for education!

Mickey L. Burnim, Assistant Vice President, University of North Carolina

If a college simply adopts a guarantee of minimally acceptable mastery (as determined by the institution as a whole or by department) before a degree is awarded, with no statement about commitment or promise of support to help students attain that mastery, students will be likely to matriculate elsewhere. . . I would venture to say that most students these days are looking for the easier path to their degree, and this implies fewer obstacles, not more. I am thus quite confident that many of them would view proficiency exams as obstacles, no matter how much institutional commitment or how many promises of support there may be.

When students have moved beyond the point of matriculation (i.e. when they can no longer avoid proficiency exams by choosing other institutions or departments), such a warranty will very likely focus their attention and effort upon the examination itself. To the extent that students associate passing the proficiency exams with taking and doing well in certain courses, they will be more likely to take those courses and work hard in them. If, on the other hand, there is no demonstrable correlation between taking a prescribed curriculum and passing a proficiency examination, students are likely to be frustrated.

If focused properly, and if it includes support to help students achieve proficiency, then the warranty approach can: (a) provide an incentive for students to take their liberal education curriculum with greater interest and intensity; (b) provide greater focus for faculty in planning courses and preparing teaching strategies; (c) force greater coherence in the curriculum; (d) provide some sign to external publics that the institution is making an attempt to assure a quality education; and (e) place greater emphasis on outcomes and make it easier to relate the curriculum to those outcomes.

On the other hand, the warranty approach is very difficult for institutions to adopt in isolation from others, and any benefits in terms of the greater coherence of curricula would come at the expense of some variety, flexibility, and creativity.

If we accept the premise of a warranty, at least three mechanisms are necessary to implement and sustain the practice: (1) the cooperation and/or advocacy of regional accrediting bodies; (2) assessment instruments and methods that assure precision and minimize bias; and (3) regular review procedures to insure that the assessment instruments stay current and are not misused.

Chia-Wei Woo, President, San Francisco State University

There is no reason that young people in this country must postpone meaningful thinking work with the college years or beyond. Indeed, "students are not likely to accumulate in four years both the generalized and special knowledge necessary for first-rate performance as professionals." The remedy can be in the form of adding a year or two at the tail end as suggested; or it can be in the form of strengthening entrance requirements to professional education programs. The latter has the advantage of placing all expectations right up front. Just as the desire to enter medical school has driven many undergraduates toward taking liberal arts courses in college and volunteering for field experience in hospitals, special course requirements for entering undergraduate professional programs may induce high school students to broaden their base of liberal arts preparation. On this point, we can try to influence the specialized accreditation associations. . . The warranty of the baccalaureate degree must find company in a warranty of the high school diploma.

I don't think liberal education has fallen out of favor because parents and students have come to believe in a highly specialized education, but because they have come to disbelieve that our so-called liberal education delivers what we advertise. They only see academic cafeterias serving beautifully packaged junk food in the guise of nutrition. They see random facts and jargons passed along as substitutes for in-depth studies in the guise of "broad learning." So they opted for structured substance, wherever structured substance can be found--in professional programs if that's where it is to be found. It is our task to bring back *true* liberal education.

Involvement in Learning implies that true liberal education involves the integration of knowledge. I am wary of the word "integrate." Integrate to improve writing, fine. Integrate through senior seminars, fine. But do not integrate when there is nothing yet to integrate or where there are no tools to integrate with. I see students in the lower division pushed into integrating mental voids, or building interdisciplinary bridges across lands of ignorance. That's inhumane. It gives liberal education a bad name.

As a warranty of the baccalaureate degree, we must return college courses to proper substance and rigor. For example, let us allow *only* those courses that qualify as entry courses to majors to count for General Education requirements. This may wipe out a large number of courses in many college catalogs--those that have been "specially designed" for non-majors. Good riddance, I say!

I wish to register my strong support for proficiency assessments. Examinations *do* have their worrisome aspects. Objections will arise that they are culturally biased. But such objections may not be strong in the case of baccalaureate examinations because baccalaureate degrees are earned independently of confining cultural or social conditions and are *meant* to reflect a certain degree of cultural homogenization in any case. Objections will arise that examinations can be studied for . . . But even this has certain redeeming value: it makes one learn something from supplementary, non-classroom sources. Objections will arise that they may place limits on the academic diversity which we so cherish. Well, no, not really--not if we set the examinations at ground level, as platforms upon which the vehicles of diversity can find strength to take off.

There will remain valid objections concerning the choice of subject matters, the style of examination, subjective grading (especially in the humanities), uniformity in grading standards, etc. . . But a comforting thought is that one could experiment in small ways: at one university, in one state, or with one regional college accreditation organization. One could begin with setting rather modest proficiency floors. For a nation that has avoided general baccalaureate examinations for two centuries, a decade of path finding should not be considered an unsupportable luxury.

Christopher Chase, Dean, Mount Ida College (Mass.)

When used in the proper manner, proficiency examinations serve several useful functions: (1) they elevate student expectations; (2) they verify whether students have mastered a body of knowledge; (3) they provide a check on grade inflation; (4) they confirm whether or not students have the ability to synthesize information and concepts from different intellectual domains. The tests measuring items 2 and 4 are separate instruments. The first tests knowledge in a major or concentration; the latter assesses the outcome of general education programs.

Having said this, let me suggest that proficiency assessments are perhaps better used to determine what changes are needed in an institution's curriculum and pedagogy than to decide whether a student will or will not graduate. If a student has received decent grades in coursework and cannot pass a proficiency examination, the fault lies with the institution, not the student. . . .

Proficiency examinations in any of themselves do not greatly improve learner expectations and performance. Research conducted by ACT indicates that proficiency exams raise student performance only when accompanied by clear program goal statements (see Aubrey Forrest, *Increasing Student Competence and Persistence*, ACT, 1982). If proficiency examinations are to be used, they must be coordinated with other mechanisms that influence on student expectations.

On the other hand, colleges and universities can learn from proficiency examinations about the changes they need to make to enhance student performance. Institutions may need to guard against grade inflation; they may need to develop new instructional strategies; they may need to integrate a curriculum that has become centrifugal. . . To obtain the feedback that is necessary for making informed change, there is no need to test all graduating seniors. A statistically significant sample will suffice. . .

Leon Selig, Assocociate Dean, Lubin School of Business, Pace University

I know from teaching graduate students in business that there is a need for the benefits derived from a liberal education. I refer to the ability to think clearly, to analyze, to synthesize, and to be able to write. I also know from my work in business and government that these qualities are considered to be in short supply. There are lots of technicians--accountants, marketing professionals, and other functional specialists in the workplace, but there are not enough people with the training we know to be the product of liberal learning.

If the recommended solution is to require proficency assessments in both liberal education and in the student's major as a condition of awarding degrees, what is the problem or question? It is to restore liberal education to its central role in undergraduate education.

If this is the problem, can this recommendation help solve it? I think it will prove effective in certain cases, but I also think that this is not the most effective solution. That is, while an examination may work, other things may work better. Let me submit my reasoning.

1) Proof of knowledge is not the issue; interest in learning is. A college education should provide the basis for lifelong learning. . . To be an educated person is not to have mastered certain materials or to "know" a discrete set of facts. Knowledge does not consist only of an inventory of things known, but is a process of inquiry in which the answers we can give are based upon the ideas, observations, and insights that are available to us. To become educated, one must be able to ask questions and seek answers, to criticize and propose, to not merely listen and remember. Above all, one must develop links to the past and to other cultures.

Liberal education should be exciting. It needs to be taught in such a way that students take to it for enjoyment and personal enrichment. They will not see it as a necessity for a job. They are wrong, because its value is not in the facts one learns, rather in the way one learns to think and to communicate ideas, concepts, and meaning.

2) Coming from the business sector, I hear this recommendation as a search for quality control. In business, where "warranty" exists, product testing along the assembly line and at the end makes sense. Does it make sense in education?

Testing for skills is like testing a plumber's proficency, and it may be effective. But can cognitive learning be tested for quality, particularly given the vast selection of knowledge offered as liberal learning? Will successful completion of an examination be a valid measure? General education (liberal education), different from a major or concentration, is too vast to be tested effectively by a comprehensive exam. More testing does not an educated person make.

Thus, the value of liberal education and the value of college degrees will be enhanced not by more testing of students but by a clear commitment of colleges to a demanding curriculum, by quality faculty relating their courses to those in other fields and to the world around us, by students having the perception that education is an extraordinary opportunity, challenging but fun, necessary, and worthwhile to continue throughout life.

4. Can We "Warranty" the Associate's Degree?

Stephen Schneeweiss, President, Cazenovia College

In thinking about a proposed "warranty" of the associate's degree, it is important, first, to ask which degree we are talking about. The A.A., A.A.S., A.S., or A.O.S.? Each of these degrees presents a different set of expectations and methods of evaluation.

The A.A.S. and A.S. degrees encompass such diverse fields as fine arts and nursing. Indeed, several of these fields, such as nursing and medical tehnology, have very specific licensure programs that include state and/or national tests in the discipline. Besides a wide variety of "tests" ranging from teacher observation to written exams, there is the "final" licensure examination. Should the colleges have a specific responsibility if the student fails the licensure exam? Do we owe the student a guarantee of success as defined by passing the specialty exam? This opens two issues:

1) At what level is failure acceptable? 100% pass; 95% pass; 50%?

2) Besides obtaining both a license and a job, what constitutes success?

Let us examine the A.A. degree, which is essentially a transfer degree. What constitutes success in the A.A.? Does a successful transfer constitute warranty? The 4-year college to which one transfers will, in effect, evaluate all students from the same 2-year institution.

The A.O.S. is a job-oriented, terminal degree. Shall the sole criterion be that the student gets a job? If a student gets a job, is it the evaluation of the employer that determines success?

The point of raising these questions is that if we follow logic and pursue each of them, they branch out as would the roots of a tree. To follow that analogy to its logical extension is to realize that we have entered an academic forest with its own ecological rules of behavior and balance. I would agree that the associate degree-granting institutions are a forest of different and diverse trees. Each bears the fruit of its efforts. While commonality exists, so do distinct differences. What appears to the casual observer as chaos is, in fact, being governed by its own ecological rules of behavior, i.e. internal evaluation, normative testing, job placement, admissions, retention, graduation, employer feedback, etc. The marketplace is the best tool for controlling quality, and thus, is the ultimate warrantor.

Robert Miller, President, Quinebaug Valley Community College

We have students in our colleges for the equivalent of only two years. Therefore, we may need to develop and implement different strategies from those employed in four-year institutions for assessing their progress, their achievements, and their ability to integrate their learning in the various disciplines.

The use of the comprehensive examination in a form similar to that used by four-year institutions in the past strikes me as an inappropriate means of assessment. Students, I feel, would view it as another test--a super test, producing a lot of anxiety and not assessing very well the knowledge gained during their journey through our colleges.

Other kinds of proficiency assessments are now used at a number of institutions. These include internships which are especially appropriate for those enrolled in career programs. At our college, a candidate for a degree is required to pass a reading/writing skills proficiency test and a mathematics proficiency test. But, in addition, the student must complete a major written report in conjunction with one of his or her courses, according to certain specifications.

The moderate size of most of our community colleges and the tradition of faculty-student interaction render possible other methods of assessment that might not be feasible in larger, more complex institutions. For example, proficiency assessment might occur through a group discussion in the final semester between a student and some faculty and administrative staff. . .

John Dunn, Executive Vice President, Springfield Technical Community College

The idea of requiring proficiency assessments in both liberal education and in a student's major as a condition of awarding degrees is not new in American higher education, or elsewhere, for that matter. As we all know, this is especially true in the professional fields in which proficiency is measured in the technical subject matter, although not necessarily in the liberal arts. . .

At community colleges, however, there is often a pronounced imbalance between student expectations at the point of admission and the level of proficiency required to succeed and earn the desired degree. The reality is that we must accommodate the thousands of students of heterogeneous backgrounds who arrive on our campuses with high expectations to become a nuclear medicine technician, a nurse, an automotive technician, or a transfer student bound for a senior institution of higher education. As a result, we must provide an educational delivery system that allows for the bright and gifted, as well as the underprepared, and still ensures that there is real value in the associate's degree we confer. And how do we warranty this degree?

De facto proficiency assessments exist at the completion of many degree programs at community colleges. For example, a major focus of the community college today is on high technology and education for the health professions. Higher education does not specifically measure for proficiency in these areas, but the external accrediting agencies do. Within these subject matter areas, compentency-based curricula have been developed. External accrediting agencies and state approval agencies evaluate these curricula from the point of view of standards of competence, and the certification examinations given in those areas are also competency-based.

Should an approach similar to that of certification of licensure be extended to all other academic disciplines--and to liberal education in general--as a prerequisite for awarding a degree? Not if such warranties would be based on standardized proficiency examinations. There is always the danger that such examinations will tilt the direction of education away from the process and toward the end result. The score on the examination begins to overshadow the experiences of getting there; too soon, one would be faced with the corollary that the end should be, and is, of far greater consequence than the means.

Bill Burges, Vice President for Development and Lily Kliot, Director of Program Development, Cuyahoga Community College

Obviously, the national concern about education has come to the doorstep of postsecondary institutions. Two-year colleges are, deservedly or not, the most vulnerable to an attack based on the quality of their products. Therefore, they have the most to gain by responding to questions about quality that the entire higher education community faces. In the next five years, increasing numbers of two-year institutions will warranty their degrees and their graduates by taking major steps to raise expectations, standards, student outcomes, and hence, their public image.

Why? Because two-year schools are too often perceived as the colleges of last choice. The student body, often composed of displaced workers in need of basic skills or vocational repairs, and low-achieving high school graduates and dropouts (as well as some qualified baccalaureate candidates seeking a low-cost alternative), is often viewed as second or third rate. Two-year institutions sometimes suffer from faculty identity crises, from a lack of clearly defined majors in the transfer programs, and from ambiguity about the value of the associate's degree.

In this atmosphere, the advantage of moving dramatically to assure the quality of all graduates will become apparent. If the two-year degree is not a warranty in itself and its value is unclear, the effort by two-year institutions to develop a long-term market in pretechnical training and custom skill upgrading for business and government is weakened. So is any effort to strengthen relationships with secondary schools and to reach specific transfer agreements with four-year colleges. Higher expectations of students, and the resulting improved image, however, will help them compete.

A bona fide warranty, of course, would require enormous changes, including:

1. External reviews to develop models of the "working graduate" for each major or technical program;

2. Corresponding changes in curriculum, instruction, and exit requirements to fit the models; and

3. Development of customer satisfaction processes such as cost-free remediation or retraining in the guaranteed skills areas, toll-free "help lines" for underachieving distant graduates, or reimbursement of the costs of retraining or replacing unsatisfactory new employees.

It is possible to identify critical outcomes and to "warranty" graduates as able to perform in further education or in the workplace. Yet, the organizational culture of postsecondary education is unlikely to be receptive to this idea. Relinquishing the final right of judgment and proposing that future levels of performance might be guaranteed introduces an alien force with which few faculty or administrators are likely to be comfortable.

But the issue is not a "guarantee of learning" at all. Rather, it is providing reasonable assurances that our exit standards relate to the requirements of the future careers and education that our students will face, and that we measure student achievement of those standards in ways we can defend.

Thus, what is likely to occur is a spate of internal reforms to assure the relevance and quality of programs, to increase graduate requirements, to create comprehensive and subject-specific examinations, and to convene visiting advisory committees not only from local businesses but also from institutions that receive transfer students. The longstanding cry for a clear core curriculum may now meet with receptiveness at many institutions. More importantly, we may begin to dedicate sufficient resources to academic advising. And if external accreditation reinforces these moves, we may witness improved program definition and instruction. All these reforms are important, achievable, and within our tradition.

Gerald Wilson, Director, Division of Science and Mathematics, Tyler Junior College

In examining the warranty question from the Junior College perspective, we determined that one could approach the education process in one of two ways:

1) Develop a definition of an "educated individual" and develop our programs of study according to that definition; or

2) Develop high quality liberal arts and major courses in all areas of academic pursuit so students would have the best chances of transferring to a senior institution.

We chose the latter approach, and therefore must depend upon senior institutions to provide the definition of an "educated individual."

For us, the logistics of comprehensive proficiency assessments before awarding an associate's degree are prohibitive . . . and we thus believe it would be more beneficial to select courses in which standardized final examinations could be given, e.g., algebra, where there is a logical progression of skills. In addition, we believe it is possible and worthwhile to begin developing assessment instruments in various degree programs and to make them available on a voluntary basis, at least initially. . . This process would allow students time to become accustomed to accountability for their entire college experience.

William Dunifon, Dean of Education, Illinois State University

The goal of the "proficiency exams" is geared to move community colleges, four-year colleges, and universities toward higher levels of accountability. The major thesis seems to relate to what has been called the "value-added concept," i.e., the question of whether we can demonstrate to all constituencies, including students, what we have done. . . But an exit assessment designed as a warranty of the degree does not demonstrate "value-added." In order to carry this proposal forward, a more comprehensive, sophisticated (and probably expensive) assessment model will have to be developed. Further, the same assessment paradigm must be used at both entrance and exit.

Genuine assessment will not be accomplished through use of pencil and paper examinations alone. It would require observation and evaluation of spoken communication skills as well as critical reading. Reasoning and the ability to engage in integrative thinking are not really determined through tests that can be graded by an OP-SCAN machine. . . This is where a special burden is placed on community colleges. Their curricula and courses of study are enormously diverse. They would be obliged to execute entrance and exit assessments across a greater variety of content and disciplines than may be possible for them to realize. . .

Hiroshi Kato, Dean of Instruction, Windward Community College (Hawaii)

The warranty of the associate's degree presents a great problem. The American Association of Community and Junior Colleges policy statement on the associate's degree includes the recommendation, "the associate degree must indicate that the holder has developed proficiencies sufficient to prepare for upper-division collegiate work, or to enter division collegiate work, or to enter directly into a specific occupation with confidence." In other words, they look at the degree as a currency to negotiate the next step. Some community colleges have been successful in articulating their associate degrees with their state universities, but in most cases the degrees are not accepted as representing a satisfactory completion of an entire lower division core. Instead, individual courses are accepted. Likewise, industry tells us it wants people who have the ability to understand and solve problems--graduates who are both literate and trainable. They say that is what they want, but whom do they hire? The graduates with degrees in technical fields, engineers with limited liberal arts backgrounds, and technicians from technical schools.

There is another problem with the plethora of degrees we offer. Hawaii is unique because it has only one system of public higher education, the University of Hawaii, that includes professional schools and the community colleges. Our community college students may have less trouble transferring courses, but because the institutions themselves are semi-autonomous within the system, and because they have not agreed on a common degree, the associate's degree does not necessarily meet university requirements . . . Part of our problem in the community colleges is that we have too many different degrees: AA, AS, AAS, AGS, etc. If competency is evaluated, our degrees might be accepted, but we would first have to decide who decides what knowledge is to be tested and whether we have the resources to do it.

RECOMMENDATIONS AND STRATEGIES

In one sense, the round-table discussions of expectations and standards were disappointing: they did not result in very many specific and concrete recommendations and strategies. Rather, the generalized hortatory statement dominated. Some will say that, given the subject, that is an inevitable result, no one wants to talk in specific terms about how to design and implement strategies for improving academic standards in higher education. It's much easier, after all, to say simply that we must have such standards, but that our institutions are too diverse to arrive at standards together--even if done by institutional type and degree of selectivity. Others will note that the issues of expectations and standards are inseparable from assessment issues, when asked for concrete strategies on standards, therefore, conferees talked about assessment, and you can find their recommendations in Section III. Still others would point us to the quality of the prepared statements on the topic, and observe that, within those statements lie concrete recommendations of such a high order that there was virtually nothing left for the larger groups to say.

Not quite. These discussions tended to focus on the high-profile "warranty" recommendation of Involvement in Learning, which strongly advised all our institutions of higher education to "supplement the credit system with proficiency assessments both in liberal education and in the student's major as a condition of awarding degrees," and provided background for consideration of the concrete recommendations offered by those who prepared formal statements. This background was dominated by the variable of diversity, and was largely concerned with the community college.

If one reads across all the notes compiled from the round table discussions, the community college emerges as the most vulnerable on the standards issue, and hence, the institution with the most to gain by leading the development of warranty mechanisms. It was reported in more than one discussion, for example, that anecdotal evidence from community college faculty in Florida suggests that the CLAST test may be a positive intervention in that it will dispel the mythology that associate's degree recipients are less qualified to advance in their academic careers than sophomores in 4-year colleges. Community college faculty, it seems, welcome public inspection using performance standards.

The "warranty" discussions also lead to some interesting suggestions concerning the credit system, and to explorations of the ways in which departments or larger academic units (schools, divisions) can upgrade and publicly guarantee the "standards of content" in their curricula, with or without "proficiency assessments." The identifiable recommendations and strategies within these discussions are as follows:

Standards of Content: Department and Program

1. Instead of capstone proficiency assessments, all departments and programs in a college should develop and adopt requirements for progression in the major. These requirements should refer not merely to courses to be taken outside the major, but also to competencies and knowledge to be demonstrated at different stages of a student's college career. Departments are thus encouraged to think beyond their usual notions of prerequisites, even prerequisites in other disciplines.

2. In order to persuade readers of college transcripts that what lies behind the course title is worthy of college credit, let alone to guarantee the public commitment of faculty and departments to the content of college learning, a format for "expanded transcripts" that can be adopted by any college should be developed. This "expanded transcript" would include, for each course, a paragraph describing the course and its learning objectives, and a paragraph devoted to excerpts from the course reading list and/or descriptions of resources and methods used in reaching those learning objectives. A transcript containing such information would also serve as a long-term reminder to the student of the content and value of his/her college education.

3. To facilitate faculty cooperation in any readjustments in course requirements for the degree, institutions should not calculate student credit hours by department. They should be calculated instead by larger academic divisions, such as humanities, social sciences, natural sciences, engineering, management, and interdisciplinary studies. Part of the purpose of this shift in reporting data is to cut down on interdepartmental rivalry and to provide administrators with greater flexibility within enrollment-driven budgets.

The Warranty of the Bachelor's Degree

1. Four-year colleges should, at the student's election, award the associate's degree upon demonstration of college-level language and mathematical competence and completion of a general education program in the traditional academic disciplines. The purpose of this approach is to provide at least some students with a basic postsecondary credential, to reduce attrition during the first two college years, and to provide the grounds on which some students can stand in the labor market.

2. A standardized test is both unnecessary and undesirable for a public demonstration of the worth of the bachelor's degree (which is what the "warranty recommendation" in Involvement in Learning is really about). Each college can, and should, determine what public performances are appropriate to its mission and constituency, and can, and should, publicly promulgate the purpose and criteria for the performances. For example, a college may require each student to demonstrate his/her ability in critical thinking through a senior thesis that, no matter what the major, demands conceptual analysis of an issue and draws upon the primary artifacts or types of evidence normally used in the discipline of the major. Criteria can be

established for at least three levels of performance on such a thesis, and the degree can be awarded--as the British do--according to the level achieved.

3. As the bachelor's degree has historically signified a curriculum balanced among general education, the major, and electives, colleges and universities must limit the number of courses a student may take in the major as a way of protecting the elective component of the baccalaureate course of study. If professional accrediting requirements stand in the way of this adjustment, groups of institutions should drop the seal of the professional accrediting body. If enough institutions do it, the trend toward constant increases in course requirements in undergraduate professional majors will be stopped.

The Warranty of the Associate's Degree

1. Senior institutions should not accept credits in courses that were not designed for transfer. All public four-year institutions in each state (flagship state university, state university branch campuses, and state colleges) should reform their credit acceptance policies with respect to transfer from community colleges, and should publicly promulgate lists of courses that will not be accepted for transfer credit.

2. A warranty of the "general studies" programs in two-year institutions can be accomplished by selecting specific courses in which to give standardized final examinations, such as college algebra, introductory biology, and U.S. history. If the examinations and performance criteria are developed jointly with area four-year colleges into which students usually transfer, the transition should be a smooth one for both the institutions and their students. The process of that development would involve a committee functioning like a Board of Examiners.

3. A more indirect path to a "warranty" of associate's degrees in occupational curricula can be developed through an external review process in which models of "the working graduate" can be developed in each occupation. These models would be competency-based, and by including faculty from the arts and sciences areas, as well as employers on the external review teams, community colleges could be confident that the model would not be narrowly focused on technical skills and knowledge. Program requirements, subsequently adjusted to conform to these models, would themselves serve as guarantees to both students and employers.

Remediation

1. While remedial courses should not be granted college credit, counseling and tutorial services should be increased for remedial students. And the tutoring should be done principally by human beings, not by computers.

2. Students in need of remediation across the entire range of basic skills should be in an adult basic education program, not in a degree program. In this manner, greater resources can be brought to focus on their needs.

3. Many courses bearing titles such as "Chemistry for the Non-Major" or "Economics for the Non-Major," are in effect, remedial courses, and should not be offered in the four-year college curriculum. If it is necessary to extend the concept of remediation to some of the disciplines normally taught in high schools (as opposed to confining the "remedial" to English and mathematics), then such courses should be separated out and required as prerequisites for college-level courses without college credit.

College-Level Learning

1. No college, community college, or university should award credit in degree programs for courses in personal services or hobbies that lie outside the traditional academic disciplines, professional disciplines, or occupational programs. Such courses can be offered, to be sure, but as part of extension or community education programs.

2. The "course" should replace the "credit" as our basic unit of accounting in higher education. Acting through the concerted effort of regional and professional accrediting associations, standards of time and content should be established for this basic unit of accounting. While there will always be variations, the chances are that they will be slight, and the standards should account for them.

3. Attainment, and not time-on-task, should be the measure of learning in colleges (let alone elsewhere in education). Hence, wherever institutions of higher education use assessments (particularly paper-and-pencil tests), speed of response should not be a performance objective. This implies that our assessments should be designed to elicit a full demonstration of knowledge, not to fit into the arbitrary time blocks of class periods.

4. As a corollary to #3, institutions should determine the learning objectives of courses first, and only then determine how long it should take to reach those objectives. This corollary suggests that there is often a mismatch between the stringent structures of semesters and quarters and the actual learning that professors aim for in different courses. Colleges are thus urged to divide their academic calendars into smaller units, to express the length of courses in terms of the numbers of those units, and to schedule them in such a way that the courses can overlap. Only in its first implementation would such a system be a burden to registrars and room-schedulers. Students would find that they would not be preparing for all their final examinations at the same time and would also find that there would be some months when they have three courses, and other months when they have five courses. This situation is far more realistic in terms of preparing students for the world of work.

III. ASSESSMENT

> "This third condition of excellence is regular and periodic assessment . . . The use of assessment information to redirect effort is an essential ingredient in effective learning . . . This is true whether the learner is a student, a faculty member monitoring the progress of students, or an administrator seeking to identify the educational strengths and weaknesses of a college and its academic programs. "--Involvement in Learning

Assessment became one of the most fascinating but contentious areas of discussion in the course of the national response to the major reports on the quality of higher education. Involvement in Learning, in particular, raised assessment to a first principle of higher education. Fully one-third of the recommendations in that report dealt directly or indirectly with the assessment of student learning, faculty performance, program quality, and institutional environment. At the time this topic was thrust into the center of discussions concerning the improvement of college student learning, some states had already begun to implement various testing programs for students in public institutions and other states were considering taking similar steps.

It was thus appropriate that participants in the round-table discussions on assessment were asked to consider the roles of the key parties in assessment---states, college administrators, faculty, and students---before they offered their own strategies for developing effective approaches to assessment. The following excerpts from their prepared remarks best reflect the range of perspectives on these roles.

1. The State Role in Assessment

Eleanor McMahon, Commissioner of Higher Education, Rhode Island

The central question before us is that of the realistic responsibility and limits of state involvement in assessing students. Should we go the Florida route, which is probably the most aggressive in the nation? In that state, the "Gordon Rule" requires of all college students six hours in mathematics and twelve hours in English, with a specification that the latter include at least 6,000 words of written work. Or should we follow the Tennessee route? In that state, the legislature (through the Higher Education Commission) requires institutions to quantify and report periodically on a number of program objectives that include increasing the percentage of students entering four-year university degree programs, improving the average National Teacher Examination scores of students in teacher education programs, improving the standardized examination scores of graduating seniors and, more particularly, improving the rate of passage of professional examinations and job placement rates.

It is my view that the state governing or coordinating board should make sure that the legislature does not find it necessary to go the Florida, or, indeed, the Tennessee route, by insuring that institutions of higher education themselves do.

It is also my view that the area of student assessment is one in which the elementary/secondary-higher education linkage is critical. For example, an adequate formative and summative testing program at the elementary/secondary level would greatly limit the necessity for entry-level testing and remediation at the postsecondary level. However, the most recent . . . data suggest strongly that, with the exception of very few states, our testing programs at the school level are far from ideal. For this reason, states and institutions of higher education must continue to be concerned with proficiency testing upon entry. If that testing is to result in an eventual reduction of the necessity for remedial work at the postsecondary level, it should be planned and carried out in conjunction with the elementary/secondary sector.

We have examples of this kind of effective liaison in terms of both process and result. A few years back, a high school in Columbus, Ohio was concerned about its students' mathematics assessment test results for entrance into Ohio State University. It suggested that Ohio State give those same tests to high school students in the 11th grade. As a result, the students and teachers in that high school came to identify the points at which deficiencies could be remediated at the secondary level. Thus, students began taking additional courses in mathematics before completing high school, and a joint effort at curriculum reform ensued. Since then, the program has become statewide, involving 600 of Ohio's 900 high schools, has been funded by the state and by foundations, and has expanded into the writing and science areas.

The role of the state in the area of assessment is primarily one of setting policy and stimulating appropriate action at both the state and institutional levels. I would agree with the recent AAC report which sees the role of governing boards as ensuring that there be effective processes of student and program evaluation, but in doing so, to follow the principle of subsidiarity, that is, to insure that most of the "action" takes place at the institutional level.

James O. Hunter, Commissioner of Higher Education, Pennsylvania

For most American colleges and universities, student assessment is used principally in admissions requirements and standards, which determine placement; and in graduation requirements and standards, which determine the degree conferred. . . Given long-established, firmly entrenched and carefully guarded academic freedom, student assessment is determined, in the final analysis, by faculty. The adequacy of such assessment is now being questioned.

While higher education has grown and changed dramatically over the past few decades, student assessment has not. . . Realistically considered, the recommended changes in student assessment are not likely to occur until there is enough "hue and cry" to bring them about. Even then, faculty will not initiate the changes. Faculty will participate in implementing changes only if those responsible for governance of an institution require the changes.

Will institutions initiate the recommended changes? Realistically considered, most will not without some kind of pressure. The pressure could arise from statute, regulation, the behavior of other institutions, or the marketplace in general. If a state legislature has delegated responsibility for student assessment to other state agencies or boards, the legislature will probably not intervene unless it is clear that the responsible parties have utterly failed.

Should the response be statewide testing programs? I think not. If we accept the premise that there is great diversity in higher education, then we must agree that institutions or groups of institutions are significantly different in their missions and therefore in their stated objectives for undergraduate education, i.e. the educational outcomes sought. If we believe that an integral component of student assessment is measuring how well students at an institution achieve the stated objectives of undergraduate education at the institution, then statewide testing programs will not provide the recommended assessment of teaching and learning. . .

State regulations demonstrate state leadership, and can be amended to include assessment, e.g., by adapting some of the language of the recommendations in *Involvement in Learning*. If sufficiently publicized, such amendments can generate increased scrutiny of institutions by their own constituencies. This is a different kind of healthy pressure. If a critical mass of institutions respond to the scrutiny by implementing the recommended assessment programs and publicizing their expected achievements, peer pressure and that of the marketplace will cause other institutions to do the same.

Frank Matsler, Professor, Illinois State University

For purposes of discussing the state role in assessment, I'll define the term "state" as meaning any of the following agencies: (1) the state legislatures, (2) the governors of the various states, and (3) the statewide higher education boards. . . The Study Group recommended that state officials should establish special funding to encourage efforts that promote assessment. I suggest, however, that this could be criticized by the very same "state officials" who expect us to be constantly evaluating our enterprise, without additional funding, as part of our regular duties. I contend that these "officials" are going to make their own decisions on matters of assessment and will base those decisions on political considerations, not on advice from us in the profession.

Our job is to turn out the best product possible and thus minimize intrusion from the State. Assuming limited resources, the allocation of funds for purposes of assessment may well come out of other funds, and we must be prepared to state what they are and what we are willing to give up. If we do not take the initiative locally and indicate what the resource trade-offs will be, the legislatures will mandate their own choices of competency tests. . . .

Thus, the "unintended consequences" of not responding to the whole question of quality may be additional and unwanted legislation. We must keep in mind that statewide testing becomes less valid as the grade level increases. Basic skills at lower levels are much easier to assess than proficiencies in many of the broad fields of a college curriculum. . .

As for the student role in assessment. . . the onus for good assessment is on the faculty and the administration; but good assessment practice requires student participation in the process. . . Let's turn the question around just a little and ask how we can take advantage of the special, but limited, expertise of students in helping to evaluate programs and the learning environment. Although we've often seen students protesting the denial of tenure to a professor, we do not often see students organizing to force a poor teacher out of the classroom. . . While students may not be able to judge the adequacy of course content, they should be consulted on the quality of delivery of that content and on program coverage. . . .

Clifford Adelman, Office of Educational Research and Improvement, U.S. Department of Education

In practice, of course, "the state" (through any of its agents) enters and/or influences the assessment of individuals in a variety of ways. And when the higher education authority is a "coordinating" board, rather than a governing board, the "middleman" in the chain of authority may be missing. Each state, obviously, has a different chain of authority in such matters.

We might then ask what the various purposes of state-initiated or state-administered assessments of student learning are likely to be. There are at least seven possibilities here:

(1) Statewide or sector wide admissions tests. What we have now, at best, are admissions policies that may involve the use of external examinations. However, no state has developed its own for purposes of admissions (the Regents examinations in New York are not general admissions tests, though they are about as close as we come to a state-developed and administered gatekeeping assessment device).

(2) Diagnostic and placement tests. These assessments can, and have been adopted by states for purposes of sorting students into programs according to ability levels after they are admitted into college. . .

(3) Credentialing. The term refers to final assessments given as a condition of awarding degrees. The impulse to require such assessments stems from the consumer protection and taxpayer accountability impulses of state legislatures, but no one has done so yet. . .

(4) Certification and Licensure. Every state assesses individual graduates of specific programs leading to state-regulated occupations for which certification or license is necessary. Whether the assessments are on a national or state level, accountants, nurses,

physicians, lawyers, pharmacists, pilots, school teachers, and many others are assessed directly by states for entry into their professions. Some may be periodically assessed for recertification.

(5) Screening, Progression and Transfer. The state interest in so-called "academic progression tests" derives from the legislative perception of the difference between lower-level (freshman/sophomore) and upper-level (junior/senior) academic work and the correspondingly different levels of funding that accompany that distinction. Since that borderline is also the traditional point at which community college graduates transfer to baccalaureate institutions, states are claiming an interest in the shift of individuals between sectors and in the implications of that migration for resource demand, and the quality of education, on both sides of the border. For the community college graduate, the academic progression test becomes a degree-certifying examination.

(6) Program evaluation. While drawing on the performance of individuals, this use of assessment employs aggregate or sample data. In this case, the "state" is likely to be the higher education governing authority, not the legislature; and the interest of the governing authority (depending on its statutory powers) lies in quality control and/or assistance to institutions engaged in self-studies, usually in preparation for accreditation visits.

(7) Program improvement. When state policies tie assessment data to incentives for improvement, it is the performance of institutions, not individuals, that is under consideration, though again, assessment data on individual performance is often sampled or aggregated for the purpose.

It should be obvious that, given these seven possibilities, "the state"--however it is defined-can either intervene or use unobtrusive measures. The former is suited to purposes of both individual and program assessment, the latter to purposes of program or institutional evaluation. If the latter route is chosen, however, it is very important to do something we do not do now: control the results for ability. Students who enter college with combined SAT scores of 1200 and up, one suspects, are likely to be successful candidates for licensure in nursing or accounting, for example, irrespective of what their colleges do for them. Where there are enough "deviant cases," however, there is significant evidence for institutional and programmatic impact. The point for the state, then, is that, if one is going to be unobtrusive, one needs full data and a strong internal research capacity.

Odus Elliott, Associate Director, Arizona Board of Regents

Why are legislatures and governing boards getting involved in a matter that has been the domain of faculty and institutions? It is because they see the problem of the quality of undergraduate education as serious. They see their role as representatives of the general public as requiring that they pay attention to this matter. . .

The ideal role for the legislature in each of the three major uses of assessment (program evaluation, admissions and placement, and progression/graduation) is supportive but not intrusive. To reach that goal requires a higher level of trust and confidence in higher education governance and institutional administration than now exists in many states.

How does the role of a governing or coordinating board relate to each of the three major uses of assessment? In the case of program evaluation, practices range from the Tennessee Higher Education Commission's inclusion of student achievement data as a financial incentive, to others where pass rates on professional licensing examinations are used as indicators of quality in appropriate fields. . . In the case of student placement, a number of state governing authorities (e.g., in New Jersey, Florida, Ohio, and California) have supplemented standardized tests with batteries geared to diagnosing students' strengths and weaknesses in the basic skills. . . The Ohio Board of Regents, in fact, first used the battery as a freshman placement test, then started administering it to high school juniors to give them time to take corrective action. . . In the area of academic progression, again, practices range from using assessments to screen students seeking admission to a particular program, to the formalized systems in Georgia and Florida that require satisfactory performance on a college-level skills test to move from lower-division to upper-division status.

The problems with some of the examinations used in these processes are (1) as "minimum competency tests," they encourage faculty to teach to the test, and the result is a less stimulating curriculum; (2) as multiple-choice tests, they do not encourage the development of writing abilities; (3) as screening devices, they can unintentionally reduce access and opportunity. . .

2. The Institutional Role in Assessment

Joan Leitzel, Associate Provost, Ohio State University

Our goals in higher education demand more than the assessment of students' skills, abilities, and understandings. We need ways to assess the quality of programs in broader terms and in ways that help us see what needs to be done when students are not learning as much as we would like.

The Ohio Board of Regents now mandates Academic Program Review for all state universities, but does not specify the form of the review. Under present procedures at Ohio State, programs in large departments are evaluated every 8 years; in small departments, every five or six years. The process is conducted within a calendar year and has three components: a program self-study, an external review, and a contract involving the department, the college, the Office of Academic Affairs, the Office of Research and Graduate Studies, and usually the College of Arts and Sciences.

The self-study is broad in scope. It attempts to document the extent to which the unit has been successful in meeting program goals. It answers questions about the content of remedial courses, basic education courses, honors courses; and the performance of students in those courses; about requirements in the undergraduate major and graduate programs; about the post-graduation plans of graduates, the procedures for making curricular decisions, and for evaluating teaching effectiveness; and about the provision of support and supervision to new faculty and TA's, and the rewards for effective teaching.

This self-study, a form of program assessment, includes the results of questionnaires circulated to present students, alumni, and faculty in related fields. It provides data on the ratio of students entering the program to students completing the program, on the GRE scores of new graduate students, on student evaluations of teaching, on the professional honors attained by faculty and students, on the fraction of faculty teaching assignments at each instructional level, on the availability of faculty leaves, on library holdings, and so on. It identifies weaknesses and makes recommendations for addressing them.

The external review team makes judgments on the appropriateness of the program's goals, the quality of the curriculum, and the effectiveness of the faculty effort in research and teaching. The external reviewers identify weaknesses and make recommendations.

The contract among the parties itemizes the problem areas, states what will be done, who will do it, and who will pay for it. These agreements feed into the annual budget process. Sometimes we cannot afford to make all the changes, but the needs are prioritized.

This process could be improved in two ways:

(1) With access to more external measures of student learning in which we have confidence. For example, we need the GRE scores of our graduating seniors, and we need to know how they compare to those of similar institutions.

(2) We need more help from the accrediting groups that evaluate our programs. Currently, Ohio State has 140 accredited programs. These programs are reviewed for accreditation every five to ten years. Enormous energies are invested in preparing documents for accreditation teams. In many cases, the only return we get is a report that indicates how well our numerical data fit the accreditation criteria. This kind of report is of little help in assessing the quality of our programs. We need the professional wisdom of these visitors to tell us the strengths and weaknesses of the curriculum, the quality of interaction between students and faculty, the significance of research done in the unit, and the extent to which research is strengthening instruction. Only when these types of issues concerning quality are addressed by accrediting groups can we use their reports as part of an academic program review.

Eugene Hughes, President, Northern Arizona University

The knowledge bases for program evaluation, outcome research, techniques of training, and principles of learning, do exist. The major problem in institutional assessment is the *will* to design and implement a program.

The desired end product of an assessment determines what should be assessed, and by what procedure. The "products" of institutions of higher education should be capable of demonstrating *language skills*, such as critical reading, effective composition, clear speech, and careful listening; *reasoning skills*, including analysis, synthesis, and creation of ideas and information; *social skills*, including tolerance for differences and interpersonal relations; and *cultural skills*, including historical perspective and values, as well as competence in specific knowledge.

With respect to student performance standards, the use of content-specific, multiple-choice exams is insufficient. Assessment of demonstrated acquired knowledge should occur in all classes. For example, a short term paper could measure the student's grasp of content, and his/her abilities in both composition and reasoning skills. This paper could then be abstracted into a presentation format, and the student's speaking and social skills assessed.

Some attention should also be given to student performance outcomes that are based upon competency requirements in the student's chosen professional or occupational field. The application of theoretical knowledge to the solution of practical problems has been the driving force behind the successful advances of the sciences, and the extrapolation of these techniques to other fields of academic endeavor is not often pursued in a concerted and purposeful manner, either in individual courses or in disciplinary programs. If attention were given to determining a set of specific objectives representative of the body of knowledge necessary for successful completion of possible job assignments, course materials could be developed to meet those objectives. At the conclusion of a course or program, student performance could be measured against those objectives.

In order for this procedure to work, faculty must ascertain the needs of business and industry. Many faculty are reluctant to make this type of inquiry, believing that what they teach exists for itself in isolated purity of purpose and truth. Although this precept might have been true in the 19th century, or even in the early years of the present century, such a position is untenable today. The efficacy of public education for the masses includes the provision of a usable store of knowledge that enables the solution of everyday practical problems. It is in this regard that student performance should also be assessed within the public educational system.

The availability of periodic input from alumni as to the value and merit of specific courses, as well as the total program, would very likely provide an opportunity for constructive assessment. With a carefully constructed survey instrument, it is highly likely that significant and positive revision, and general improvement, of a curriculum would result from the direct input of graduates. . . . Curriculum evaluation and review is too often done by the people closest to the curriculum, namely the faculty, or by the student who has just completed the course or program. The first group is too protective of its product, and the second is too inexperienced, to evaluate the experience. It is for these reasons that graduates who have been practicing their knowledge should be given the opportunity to evaluate its value.

Norma Rice, NAACP Subcommittee on Higher Education

One of the chief barriers to the implementation of effective assessment is achieving consensus. . . If the instruments are developed and used, if student evaluations are gathered and themselves assessed, and if external funds to support these efforts are made available, then a high degree of consensus would be established among faculty, students, administrators, and state officials. But if, as Involvement in Learning suggests, intra-institutional competition is introduced into the process without any means of controlling the behavior of competing factions, the result could well be more noise than information, and increased administrative attempts to control instruction. . .

Even in a cooperative environment, the tasks of establishing a systematic approach to assessment will fully challenge the intellectual and material resources of large and/or affluent institutions, and will likely outstrip the resources of smaller and/or less affluent institutions. At the same time, the task of reconciling differences among the disciplines places academic deans in particularly stressful positions, and the larger the institution, the greater the stress. . .

I also question the implicit assumption about the ease with which the recommended practices for evaluation will lead to innovation, rather than standardization. For example, it is recommended that students be involved in the evaluation process through their opinions concerning academic programs and the learning environment; yet there is little indication that such reports will receive as much attention as student evaluation of courses and teachers. Similarly, state officials are expected to fund "efforts that promote student involvement and institutional assessment" (Involvement) without moving toward external control over academic programs. But under such an effort, it is the local institution that is the best mediator between the state and the academic program. . .

We should limit systematic assessment to the skills acquired by students. As projected outcomes, skills are more easily specified, instructional strategies to impart skills are easier to develop, and criteria for determining if students have mastered such skills are already inherent in the skills. Regardless of the specific content of a course, the underlying cognitive core is composed of organizational, logical, and interpretive skills--those that are necessary for the successful acquisition of knowledge.

Daniel Perlman, President, Suffolk University

There are at least four obstacles to the adoption of systematic assessment programs by colleges and universities.

First is the perceived unavailability of appropriate assessment instruments. The work of ETS and ACT to develop general education assessment instruments is only beginning to be known by faculties and administrators. These instruments lack the widespread acceptance and use of the college entrance examinations, the Graduate Record Examination, and the professional school admissions tests.

Second is the presumed cost of buying--or developing one's own--assessment instruments. Some institutions have shied away from systematic assessment because of concern (warranted or otherwise) for an expense that is not readily transferred to students.

This is the implicit threat to faculty if assessment is perceived as an evaluation of their teaching, rather than as an evaluation of student learning. . . This is part of the larger problem of how results of such assessment programs are used, particularly by public policymakers.

Finally, at many institutions, there is a problem of dealing with transfer students who have taken some portion of their general education courses at other institutions. The meaning and utility of evaluation scores is less clear under these circumstances.

Attention to assessment by various external bodies and agencies would help institutions surmount these obstacles. For example:

(1) Many of the specialized professional accrediting associations, such as the American Association of Collegiate Schools of Business, should focus more on "outcomes" rather than on "input" measures.

(2) The professional associations in each discipline (Modern Language Association, American Psychological Association, etc.) should focus more attention on the issues of assessment of student learning within their respective disciplines. Faculty members will more readily accept assessment instruments if their use is encouraged by the professional association in their discipline.

(3) Trustees should insist on measures of assessment and evaluation.

(4) Federal and state granting agencies, and foundations with discretionary grant programs, should target discretionary grants to colleges and universities to implement assessment programs. . .

Though they have not yet gained widespread acceptance, assessment and evaluation systems are not new to higher education. Over 35 years ago at the University of Chicago, Benjamin Bloom held the title of University Examiner and directed a staff developing sophisticated assessment instruments to evaluate student learning in conjunction with the undergraduate curriculum. Each undergraduate was not only given a grade in each course, but also was provided with feedback on his or her mastery (within the materials and methodology of that course) of the abilities to analyze, synthesize, comprehend, express, and apply the methodology to new materials. . .

Richard Hartnett, Professor, West Virginia University

The rush to legislate excellence in higher education through testing can lead to some decisions that are educationally unsound. If state governing boards choose to base accreditation of institutions and their academic programs on the performance of students on proficiency tests, they will engage in the same folly as state boards of education did in accrediting teacher education programs. They will in that case, be measuring outcomes that are not only narrow but are also areas over which the institutions have little control. It is feared that these proficiency tests, if they are anything like the general studies tests used in teacher education, will measure primarily basic skills, which are the province of the high schools.

An even more serious problem may be at stake here as institutions rush headlong into proficiency testing without first having defined objectives and setting curriculum standards. If they follow the lead of their peers in teacher education colleges, they will find themselves working backwards from the test to make the curriculum fit the test items. This cheapens the liberal arts and reduces the only disciplines that truly deal with the intellect to a series of minimal competencies. . . In this scenario, the menu will be made by the titans of testing and the faculty will be relegated to the role of preparing their students to pass basic skills tests that measure only the superfluities of the disciplines.

In the public school arena and in the professional disciplines (law, medicine, nursing, pharmacy, etc.) test users have had to show that the items on the instruments actually measure competencies that will arise in the profession. In legal terms, the tests must correlate with "job analysis" competencies or else test takers are liable to charges that the tests do not truly measure their professional or career skills. The very idea of connecting liberal arts any further with vocational and training outcomes will do nothing but corrupt the disciplines. . .

Another inevitable tendency in proficiency testing is the use of test scores to screen students out of entering, or remaining in, a program. Screening will have calamitous effects on those students coming to college with weak secondary school preparation. It will also disproportionately inhibit the potential for returning adult students to make career changes. . .

Huel D. Perkins, Assistant Vice Chancellor, Louisiana State Univ.

Evaluation as evaluation has little meaning. It only takes on substance when discussed without the framework of a course or curriculum. Assessment cannot be examined in a vacuum. Evaluation does not have a life of its own; it must in some way be tied to a tangible entity.

A sound, defensible assessment system must be rooted in the following:

- A developmental approach to university curricula, i.e., how courses are related to each other, how they flow into and out of each other--in contrast to the incremental one-course-at-a-time, post-your-grades, forget-and-go-on-to-the-next-course, ideologies we tend to reinforce in our classrooms;
- A campus-wide consensus on what our students should be able to do, think about, and become upon graduation, and a clear understanding of a university's particular mission;
- A faculty schooled in the state of the art of evaluation as well as in the art of teaching;
- Class sizes that lend themselves to more sophisticated and meaningful assessment practices (until universities deal more directly with this issue, much of what we write and say about assessment will be only theorizing);
- Cultivation of a new, expanded definition of what "assessment" means, as suggested by *Involvement in Learning*. . . A holistic approach to evaluation that strives for a merger of intimacy and instrumentation is needed.

Aside from the suggestions offered above, there are those who would hold that assessment can be made more organic to learning by simply improving what is presently available for use by faculty. They would argue for clearly stated course objectives; they would support pre-tests and post-tests; they would contend that student progress is directly correlated with understanding course objectives and instructor expectations; and they would suggest that there must be truth in advertising and honesty in assessment, coupled with a clear understanding of what is to be accomplished both in the smaller "snapshot" of a single course, and in the larger picture of the institution's mission.

3. The Faculty Roles in Assessment/The Assessment of Faculty

Keith Boyum, Professor, California State University-Fullerton

How does feedback affect faculty professionals? Fundamentally, a professional is one who does not take from the client the definition of the client's best interest. The basis of the professional's superior judgment of the client's best interest is superior knowledge. In this, professionals are paternalists. We faculty think we can interpose judgments that our clients would reach, if only they were fully rationale--in either the sense of having all of the pertinent facts at hand, or in the sense of having all of the acuity available for assessing and interpreting the pertinent facts. Small wonder that faculty lay claim to high status and feel cheated if that status is denied.

Let us add to this sense of being a professional a context of collegial governance. Campus governance is prototypically collegial. . . If I am to be the high-status paternalist whose judgments reign not only for me but also for others less happily endowed with arcane knowledge, there can be no suitable model of governance other than that which seeks my participation.

Where faculty have no chance to participate in the development of the instruments that provide feedback, they will find ample reason to discount the findings. To be sure, any test is open to attack as to its validity or its reliability, and typically both. If that is true, the only way to win the game is to hand it to those who might most obviously be motivated and equipped to lead the charge. For, even positive feedback in cases where professionals have not participated amounts only to public relations.

But, if the faculty member participates and the results are negative, one may find the possibility of change. A high-status professional has to buy into the idea that what is being measured can be measured, that the means of measurement are valid, and that the instrument providing the negative data is reliable. That is, when the instrument has told me unhappy things about what I do professionally, I withhold attack only when I own the argument for this definition and this approach; and I own it only when I have had a direct hand in defining it.

Ciriaco Moron-Arroyo, Professor, Cornell University

The specific criteria of assessment in a given discipline must be sought in the epistemology of that discipline. I propose that the perceived conflict between teaching and research vanishes when we analyze the meaning of the two terms.

Teaching is a profession-vocation, and the teacher's actual performance in each class is a unique event. As a profession, teaching requires competence and generosity; as an event, it requires actual preparation and enthusiasm. The possibility of assessing competence will be directly proportional to the possibility of establishing criteria of rigor, order, and verifiability in a given field of knowledge. It is easier to assess the competence of the professor in a calculus course than in a course on romanticism. The latter, in turn, may provide better opportunities than the former to display brilliance. The comparison of literature with mathematics suggests another consideration: in many fields, the ideal is for the student to acquire an organized body of knowledge; in the humanities, on the other hand, it is perfectly legitimate--especially for non-majors--to simply stimulate the student's capacity for analysis and to explore the mysteries of human identity, communication, creativity, and sense. An organized body of knowledge on a historical period--Elizabethan England, European Renaissance--while desirable, must remain open, due to the impossibility of including in the historical reconstruction the many variables of reality.

Research is the sine qua non of competence. In some fields it may be possible to convey to students what is already known without being on the frontier of knowledge. This is not possible in the humanities. Beyond the level of mere information, the teacher of Hamlet must create his own text. Even if he only quotes from other scholars, he needs to select and organize his materials according to a personal interpretation of the work. The need to create becomes more evident if, instead of concentrating on an individual title, we are teaching a survey or a course on general concepts such as humanism or romanticism. For this reason I would affirm bluntly that in the humanities, good teaching is impossible without serious research.

That serious research is evident in the effort to understand a work. "Understanding" in this context means: (a) finding the logic of a text, (b) incorporating that text into the social and cultural circumstances in which it was produced, and (c) judging it from the aesthetic and the human points of view. This research will not only produce breakthroughs in the humanities--it is the best way to bring them about. We need comprehensive syntheses in order to see the place and meaning of fragmentary analyses.

The only conflict between this type of research and good teaching may occur by chance if the topic of a particular course is not related to a long-term research project and the professor sees teaching as an imposition. In this case, he may not prepare his classes or he may remain inaccessible to students. But a course consists of three elements: classroom meetings, office hours, and related lectures that bring outsiders' perspectives on the subject. A professor who remains inaccessible outside of the classroom is thus delinquent in a third of what constitutes a course.

Richard B. Schwartz, Dean of the Graduate School, Georgetown University

Assessment of instruction is, at best, a fallible, widely distrusted enterprise upon which we are not likely to make significant improvements. Too, those definitions of scholarship that seek to enlarge our sense of the nature of that activity tend to debase it and substitute something trivial in its place. Having said that, let me add some qualifications that might soften my position without altering it in essential ways.

The only individuals capable of evaluating a semester of instruction are the students, and they are incapable of evaluating lecture content. Like any teacher, I can dazzle my students at will; all I need to do is offer up the best wisdom and insight of my colleagues and neglect to inform the class that the lecture has been shamelessly lifted from secondary sources, material of which they are generally ignorant. All that they can really evaluate is my method of delivery and the clarity and point of my argument. Only my colleagues will know that I am peddling secondhand goods and they--the ultimate assessors--will care little for style and expression. In fact, they will call that aspect of teaching performance and if I do it well, they may count it against me. Moreover, instruction that truly endures is not usually perceived as such until some time has elapsed and comparative judgments are possible.

One of the inherent problems of student evaluations is that they seldom measure *learning*, i.e., they do not tell the assessors from which faculty students learned the most material or developed the most skills. Given this and other problems, I must say that I have only encountered *one* effective system for evaluating instruction in all of American higher education--that used by the U.S. Military Academy at West Point. How is it unique? In the first place, visitations by colleagues are nearly constant, not once-a-semester official duties. Thus, the students come to expect the presence of visitors and interlopers. The visitation process is institutionalized, not an event that puts everyone on his guard. Secondly, everyone is teaching the same material and students are taking a common exam. Results are very clear. Those who have *learned* are identifiable. Also, the senior colleagues doing the reviewing cannot set salaries; Congress does that. And there is virtually no tenure. Thus, the focus of assessment is the simple improvement of the instruction itself.

Since we know, however, that we are not going to transform all of higher education into a military academy, it is hardly useful as a model. We can say that assessment should be kept pure and that faculty should not feel threatened, that only the positive should be stressed . . . we can *say* it, but we all know what is really happening.

Some things *can* be done. We can be sensitive to the fact that there is a multiplicity of instructional styles and modes--not just the large lecture hall with the charismatic lecturer. Some of us are more effective in small classes. Some are more effective teaching difficult, specialized material to non-majors. Some are most effective directing dissertations. *All* types of instructional excellence should be rewarded by prize committees and we should be quick to recognize what each of us does best and then praise it, reward it, and use it. Too many assessment schemes are monolithic. We should spend our time identifying, cultivating, and using individual skills rather than forcing the faculty into procrustean beds from which they will declaim while the students sleep.

Excellence in instruction should be a *sine qua non*, a given. Incompetence in instruction should not be counterbalanced by skill in research or administration. Having demanded such excellence, however, we should focus more on research during the assessment process, for there, real distinctions can be drawn. Teaching evaluation scores tend to flatten out. The real masters can be identified, as can the incompetents, but the vast majority of us fall into a tight grouping and distinctions are often traceable to such things as class chemistry, the fact that a course is required, or the fact that the material is recalcitrant. Splitting hairs, in other words, may be unfair and intellectually,unjustified and it will certainly be politically divisive. And, no matter what we do, the hallway grapevine and the opinions of students we trust will always receive more credence than any form drawn up by a committee and interpreted by an administrator.

My own position is that of a populist elitist. I believe that *access* to higher education is of great importance, but it should be access to *higher education*, not four more years of high school, or four years of remedial work. In other words, I believe that exposure to research, to discovery, to the development of knowledge and learning is both a demonstrable good and an integral part of higher education. As such, all of our students should have that experience, not just those at what we term "research" universities. If knowledge is fixed, if higher education is purely didactic, we might just as well turn over the instructional task to professional actors, and hire a few real scholars to answer questions when they arise.

Paul LeClerc, Provost, CUNY/Bernard M. Baruch College

On the evaluation of teaching, I would make five points:

(1) The "multidimensional approach" to assessment suggested in Involvement in Learning certainly has merit. Costs of syllabi and examination analysis--along with peer observation--are within most institutions' capacity to bear. External consultants may be used in the same way that they are used for evaluation of scholarly articles.

(2) Student evaluations may not be good indicators of anything important, but they do give our clientele some input or--and this may be more important--some feeling of input.

(3) The separation of student evaluations from the personnel process bears investigation.

(4) Evaluation (presumably by peers) of a faculty member's contributions to teaching through activities outside of the classroom (as Recommendation #19 suggests, by looking at a broad range of textbook, software, conference and other contributions) does make sense, provided that such activities remain a supplement to teaching contributions rather than a substitute for scholarly work.

(5) The most persuasive evidence of effective teaching, after all, may be successful student performance in subsequent course work. Measurement and use of such data can be tricky at best; but it is an approach worth exploring.

As for faculty scholarship, we ought to recognize that, to a dangerous degree, academic careers are affected by the economics of the publishing industry. University presses find it more and more difficult to publish books for which there is little potential market. This has nothing to do with the worth of the scholarship embodied in those books; hence, personnel standards should be adjusted to reflect this reality. There should be a place in the personnel process (and within the constraints of collective bargaining agreements) for routine external evaluation of work completed and work in progress.

4. The Student Role in Assessment

Shantih Clemans, Student, Hood College

Students must learn to challenge their educational systems--not in an antagonistic way, but in the concerned fashion characteristic of people dedicated to participating in an equal learning experience between the institution and the individual. Students have both the right and the obligation to participate in all areas of assessment--assessment of faculty performance, academic environment and programs, and personal growth and learning.

The role of the faculty member as academic advisor has received severe criticism in recent years. Students should thus take the initiative in assessing their advisors through written evaluations covering qualities such as effectiveness of style, knowledge of college or university programs and policies, and degree of supportiveness. These evaluations might then be filtered to a student committee on advisor assessment which would review the assessments and report its findings to department chairpersons and deans.

In addition to participating in the assessment of faculty performance, students must look more broadly at the assessment of academic programs. For example, students in each major should combine their efforts to evaluating the program in their field, and to studying its goals and measuring its successes and failures. A student assessment committee in each major would provide suggestions to faculty and administrators in the appropriate department(s).

I feel that college alumni/ae serve as valuable resources for academic assessment and suggest that follow-up surveys be administered to graduates on a yearly basis. These surveys should ask graduates to analyze their academic experience in relationship to their post-college life. It is my assumption that such surveys would benefit both the institution and the individuals who participate.

Doug Bernstein, Student, University of Connecticut

What are the barriers to effective student participation in assessment, and how do we overcome them?

First, students often do not know how, why, or what to assess. We should thus train students how to think critically, yet constructively, about academic programs, make them aware of the types of programs they can assess, and identify the channels through which students can provide assessment.

Second, students seldom see the results of the assessment in which they participate, are not sure if and how their assessment is ever used or what its impact may be. We should thus provide all participants in an assessment with its results, and, at the least, bring students in on the interpretation of the results.

Third, standard forms of assessment often become a routine and boring task for students. We should not rely solely on computer-scored surveys for assessment, and our outcomes should not always be numerical. Rather, we should encourage students to create some of their own assessment techniques such as one-to-one feedback or presentations at department meetings. In developing these techniques, we should elicit input not only from current students, but also from alumni/ae and students who have left the institution before graduating.

To make a comprehensive assessment program organized, efficient, and representative, a number of small, informal advisory committees should be established for each department, school, or program. These advisory committees, consisting of faculty, administrators, and students, should help plan, implement and evaluate assessment programs. Student members of the committees should seek feedback from other students and should help promote the value of student participation in assessment.

Patricia Holden, Student, School of Health Related Professions, UMDNJ

Ours is a two year associate's degree program aimed at preparing us for the State Board Examination for Registered Nurses, which is the same examination that four-year baccalaureate degree nursing students take. There is a tremendous amount of knowledge and skill for us to attain in just two years. Most of us feel we barely have time to study or to hold a part-time job, let alone to reflect on our education or to participate in formal evaluations of that education.

And, we blame ourselves first for our shortcomings because we believe that is all we can change--ourselves. We complain, but we either trust our institution, or look for another that we hope will better fill our needs. Rarely do we seriously consider the possibility of affecting substantial change in faculty performance, the academic program, or the institutional environment. I think that is largely because we see higher education as a microcosm of the adult world to which we must adjust.

When have we seriously been asked to comment on our education? End of the semester evaluations are hurried little, optional questionnaires. Many students don't take them seriously. How can we begin to organize ourselves to assess our education? When will we find the time to stop studying for the exam and look at our entire educational experience? And who will listen and what will change after all our effort?

If I were an administrator or faculty member seriously interested in improving my college's programs, I would not only urge student feedback and suggestions, but would go out of my way to encourage and facilitate that input, and validate my support with effective power-sharing.

I would provide students with time and credit for their thoughts and their research--for that is what is needed. Give us the chance to sit down together purposefully, and comprehensively examine ourselves, our instructors, our programs, and our institution. Give us the chance to develop representative and efficient assessment strategies, and to investigate and even develop alternatives to our education and we will do it and do it well.

Christine Graves, Associate Director, Associated Students of Kansas

From the students' perspective, assessment and evaluation of their own abilities, skills, and capacities are indeed important parts of their career training and college experience. Just as important is the opportunity for students to assess the institution, its programs, support services, and faculty. Without this assessment of the institution, universities don't know how they are doing, and students don't understand what they are doing, or why they are doing it.

Recommendation #20 suggests that student evaluations of academic programs and the learning environment be conducted regularly and the results widely disseminated. This point has emerged as one of the top concerns of students in Kansas. Our discussions have centered around faculty evaluations. Students feel it to be very important that they be given the opportunity to evaluate all faculty--tenured, nontenured, and graduate teaching assistants; that the evaluation be centrally administered on campus, by someone other than the faculty member on a day close to the end of the term but not on the day of the final exam; that students be guaranteed anonymity; that at least some questions allow students to express their opinions in their own words; and that these evaluations should become part of the performance file of the faculty member that should be considered in personnel decisions. These evaluations of both the faculty member and course should also be made available to the general student body.

In addressing the question of the student role in assessment and evaluation, we have to recognize the limits of individual student involvement and participation. Students are on campus a relatively short period of time and lack the knowledge concerning how the many systems in the university work. It often seems that just when the student gains that knowledge, he/she graduates. In the meantime, they go to class, prepare for tests, complete projects, go through fraternity/sorority rush, attend dances, etc. They don't "live" higher education day and night, and are often not able to judge the quality of the education they are receiving until they have the opportunity to apply, and "live", that education after graduation.

RECOMMENDATIONS AND STRATEGIES

In the discussions that followed these and other presentations on assessment, a number of recommendations and specific strategies were offered. In the case of assessment, there was a certain wariness, a fear of state-imposed standardized testing (which is not assessment), and a sense that higher education was on uncertain ground. It was the one major area addressed by Involvement in Learning concerning which participants either confessed their ignorance or deflected the discussion to allied concerns (e.g. curriculum or the evaluation of faculty). Nonetheless, some challenging observations and recommendations emerged. Pieced together from the reports of recorders, the composite statements might be expressed as follows:

Assessment of Student Learning

1. The academic department should be the focus of assessment efforts. Disciplinary knowledge paradigms are more comprehensible than "general education" paradigms, hence, it is easier to obtain agreement on the components of assessment (learning objectives, content coverage of

assessments, form and time, criteria of performance) at the departmental level. To that end, we need stronger departmental leadership in the assessment movement on each campus and the reintroduction of comprehensive examinations in all majors at all institutions. It was further recommended that consortia of departments from neighboring institutions of similar type (control, size, and selectivity) should develop assessments with some common elements.

2. Formal assessments of student learning must get beyond "basic skills" and elementary levels of competence. It was generally agreed that the assessment of basic skills is technically the easiest type of assessment in which to engage. But it was also noted that faculty can too easily pass off this type of assessment on external agencies or extra-instructional assessment centers, subsequently claiming that the institution has fulfilled an obligation to assess student learning. Assessment of basic skills, however, proves only readiness for college-level work, not success in college-level work.

3. The assessment methods we seek should be those that can measure the ability to manipulate and synthesize information, not merely to recognize or regurgitate information. For this reason, in part, we must work to abolish multiple-choice examinations in higher education and to adopt written examinations with clear performance criteria. In that process, faculty should make an effort to test the reliability of their criteria by using two readers for each examination. In large universities and courses, graduate assistants can serve as second readers, thus preparing them to be better assessors when they become faculty.

4. The assessment of student learning must be progressive and longitudinal. A responsible total program of assessment should focus on three points in students' college careers: at entry, to determine the level of academic development; at mid-point, to insure that improvement is occurring; and at exit, to determine the effectiveness of institutional curricula and student effort.

Classroom Level Assessment

1. Faculty should try some kind of initial assessment in each course, lest they underestimate the level of student knowledge and abilities in the particular subject matter or assume too homogeneous a level. What kind of assessment? Not a final examination from a previous semester and (unless it is an introductory-level course in a discipline for which there is a high school level achievement test) not an off-the-shelf product. Rather, it should be a departmentally-constructed assessment reflecting a consensus of faculty expectations.

2. To enhance the effectiveness and thoughtfulness of classroom assessment, and to increase the likelihood of feedback to students on term papers and final examinations, colleges should allow at least a week between the formal end of a semester and the day grades are due from faculty.

Assessment of Faculty Performance

1. It was acknowledged that constructive assessment of teaching cannot be accomplished with a one-hour classroom visit each year in combination with the traditional, quantifiable type of student evaluation forms. If a college is to use classroom visits to observe teaching, the following guidelines should be adopted:

- Criteria for effective teaching must be developed, published, and known to faculty in advance;
- Observations in the classroom must be frequent, expected, and regular;
- At least some classroom observations should be conducted by faculty from other institutions.

2. Student evaluations of teaching in a course, particularly on numerically structured questionnaires, fail to discriminate between adequate and effective teaching and hence should never be the sole descriptor of instructional performance. Retrospective evaluations of faculty by students within one to three years after graduation are probably more valid and should be encouraged.

3. Given the constraints imposed by the publishing industry, we should be realistic and expect less research from faculty, but research of a higher quality than is reflected in a dozen minor journal entries. In judging faculty productivity and the quality of research, we must distinguish between basic research and other forms of publication.

4. The most equitable method of evaluating faculty performance would be to develop job descriptions with built-in performance criteria, then hire people for that description and evaluate according to the criteria. In this manner, an institution can diversify and balance the strengths and contributions of the academic workforce.

State Roles in Assessment

1. Statewide assessment programs should be undertaken as joint ventures with the public colleges and linked to incentives. The state role in these ventures is primarily one of leadership and coordination strongly suggests that states should supply the ventures with technical assistance, institutional research manpower, and supplementary funds to support released time for participating faculty.

2. State-initiated assessments for purposes of institutional evaluation should require documentation of many types of outcomes and should be tied to programs for improvement. In the process, the state should hold all public institutions accountable for:

- Explicit, detailed statements of expected outcomes;
- The development of assessment processes that yield sufficient and persuasive evidence on the degree to which the outcomes are being achieved;

- o Making appropriate changes in academic programs, advisement, institutional environment, etc., to improve the situation where the data suggest.

In return, the state must guarantee long-term financial support for assessment through a special fund, allowing annual carry-overs of unspent money.

Accreditation and Assessment

1. It is the responsibility of state and college boards of trustees to pressure professional accreditation associations to reverse their emphasis on quantity in accreditation guidelines. By joint resolutions, they should request that the associations shift their emphasis toward standards for the substance and achievement of student learning.

2. A major assessment of the accreditation system itself is in order, and should take up issues such as organization, standards, procedures, duplication of effort, and requirement conflicts. This examination should also consider the investment of time by institutions and departments in the course of accreditation, the composition of visiting teams, and the role of assessment in accreditation standards.

The Student Role in Assessment

1. Where institution-wide assessment programs are developed for purposes of program evaluation, student representatives to committees establishing performance criteria and administrative procedures should be appointed by student government associations in order to insure both support and monitoring.

2. Student governments should take the primary responsibility for designing, administering, and publishing results of student evaluations of curriculum, programs, and institutional environments.

3. Groups of students in each college should be asked to prepare a senior paper that evaluates their college experience, and covers topics such as advisement, institutional environment, and academic programs. Alternatively, another group of students could be asked to prepare similar analyses at the end of each academic year so that the entire graduating class has participaced. The participation should be a required component of the student's academic program, i.e. a graduation requirement. For this approach to work, there must be a mechanism to record information and feed it into governance processes such as the faculty senate and board of trustees.

4. The student-as-alumnus should agree to devote time to both follow-up institutional surveys and formal assessments carried out on the occasions of 5th and 10th year reunions. This recommendation also implies that colleges must become far more systematic and sophisticated about alumni surveys and about their overall approach to alumni as sources of information and evidence of institutional and program effectiveness.

IV. SPECIAL TOPICS

At each of the three regional conferences, the host organizations selected a series of special topic panels from a list that had been developed on the basis of the initial reactions to Involvement in Learning, To Reclaim a Legacy, and Integrity in the College Curriculum as reported by the press. These panels sought to provide an opportunity to discuss and comment on issues that were not explicitly or sufficiently addressed in the reports.

The format for these panels was far more traditional than that for the round table discussions of Involvement, Standards, and Assessment. The presentations and discussions were not driven by a task, and were not organized by asking members of a group to address specific questions. Rather, a small group of experts on specific issues was presented with a background statement of a problem or perspective relevant to higher education reform and encouraged to comment in whatever way they saw fit within the general parameters of that background statement. An "audience," in the traditional sense, then questioned the members of the panel and offered observations and, where appropriate, suggestions for resolving the problem or advancing the issue presented.

The questions included in each panel description were designed to suggest, not to delineate. Indeed, they stimulated rather penetrating analyses by panelists, intriguing presentations of specific programs, and very intense interchanges. Excerpts from prepared remarks of those panelists follow.

1. The Involvement of Adult and Part-Time Students

Some 40% of American college students are now over the age of 25 and that percentage is going to increase. Likewise, more than 40% of our undergraduates are part-time students. Those particularly concerned with these trends did not feel that the national reports adequately addressed the needs of this constituency. So, we asked what special strategies are necessary to involve these students in the life of a campus, and, hence, in the community of learners that strengthens academic achievement? The panelists were requested to think about the practical ways in which we can assist adult learners in balancing and managing the various demands on their lives so that the time they have available for learning is spent to maximum advantage. In light of the curricular thesis of all three national reports, the panels were asked to enlighten the discussion concerning the balance of the vocational interests of adults with the liberal learning that contributes so much to effectiveness in occupational roles. It is a tribute to the panelists that, while rejecting some of the very premises of background questions, they offered so much in the way of concrete and positive recommendations.

Morris Keeton, President, Council for the Advancement of Experiential Learning

The conference planners asked, "What strategies are necessary to involve adult learners in the life of the campus, and hence, in the community of learners that strengthens academic achievement?" This is the wrong question because it aims for the wrong goal. In fact, most adult learners should minimize their involvement in campus affairs.

Consider the UAW-Ford worker with 5 children, a house to care for, church responsibilities, a 40+ hour a week job, and two tough courses. She should keep up with her home and civic responsibilities as a priority over campus involvement. But to involve her more heavily in learning, we must

- respect her reasons for returning to college, and be sure that she can learn what she wants;
- provide appropriate placement and acceleration (via assessment of prior learning or other means) so she wastes neither time nor money on needless repetition;
- provide the best aids currently available in the fields of career development and educational planning;
- minimize red tape, bureaucratic hassles, barriers of time, place and inflexibility; and
- build her confidence that she can fulfill both the college's expectations and her own.

We were also asked to consider the practical ways by which we can assist adult learners in managing the various demands on their lives. That, too, is the wrong question. We should simply get out of the way and let them manage for themselves. But we should also provide peer support groups for the first term or so, share with them what their successful peers have done to cope with these demands, and resolve financial aid needs through third party payment.

Lastly, we were asked, "If adults are primarily oriented toward vocational/professional programs, how can the curricula they pursue be structured or infused with liberal learning?" This, too, is the wrong question and reflects a lack of respect for the adult's right to choose his or her path in further learning. Instead, we must

- accept the adult's educational goals, and build upon this base to enlarge his/her understanding and vision;
- raise the learner's vision of his/her own options and potential;
- foster the adult's curiosity, ability to proceed as a self-directed learner, and desire to keep learning;
- tailor courses and curricula to the cultures and the lives of adults in particular classes and fields; and
- recognize diverse models of excellent performance in college and later life.

James Chasteen, President, Calhoun Community College

Considering special strategies for "involvement" of adults and part-time students in the life of a campus, I offer the following recommendations:

1) Make some allowances to provide for those students to be involved in student leadership positions (e.g., do not require a full academic load for candidates for Student Government Association and other student organization offices);

2) Make all offices available to the adult part-time student enrolled in evening programs (e.g., keep each major administrative office open one evening per week, so that students can interact with the president and with members of the counseling staff);

3) Set aside one hour of academic time per month (staggered from hour-to-hour to avoid excessive absences from a single class) for clubs and organizations to meet so that adult part-time students are more able to participate;

4) Make service functions such as bookstores, campus shops, and personal counseling opportunities available to evening students;

5) Encourage adult part-time students to attend campus events such as art exhibits, lectures, and athletic events by using the incentive of free or reduced admission for spouses and children;

6) Offer specialized academic courses such as a required English literature course designed with returning adult women in mind;

7) Design programs that will allow adult part-time students to serve as tutors in peer learning situations (and help faculty understand and appreciate the special skills and perspectives these students can bring to the classroom and to the more traditional student).

Linda Hatzenbuehler, Associate Dean, Idaho State University

Here are examples of a few students I know; and I am sure you all know them, too.

Chilton is an older, disabled person who desires and requires (as a result of his disability) a career change. He has previously earned a B.A. and a J.D., and practiced law in a business setting for a number of years. For him, it is frustrating to start from the beginning; it is difficult to take four or five upper division courses in a given semester (though in order to enter his new career, teaching history, he must take a heavy load). Chilton has not taken an examination in 25 years.

Char is in her 20s, recently married, and works full time. She is very much part of the "me" generation, unwilling to give up her job and out to get a college degree one course at a time. But not all of the required courses are offered in the evening or over her lunch hour. She is pressured to learn skills that will profit her in the marketplace, and humanities requirements, for example, seem to be a waste of time to her.

Phyllis is a divorced mother of four (ages 4-9). She wants a career so she can get off the welfare rolls and support her family. Her problems are all those associated with single parenthood: chicken pox, snow days, teacher conference days, etc.

Lois is in her mid-40s and married. Her children are grown up and out of the house. She started back in school through continuing education, was turned on, and decided to seek a degree. She is motivated, bright, and has good self-esteem, but she suffers from math anxiety, is frustrated with introductory-level courses, and resents the paternalism within the general education system. She feels as if she is mature enough to make her own decisions.

Jerry is a young man with a family who works as a laborer but desires an associate's degree as a means of advancing his status. His problems include shift work and overtime. He is very career-driven and sees no relevance in general education requirements.

There are two major stumbling blocks colleges face when attempting to meet the needs of a growing population of students such as those described above. The first is that most faculty are unaware of the literature on the cognitive dimensions of adult learning. If they are aware that there are differences in cognitive styles, they ignore them or resist the knowledge. . .

The second major difficulty indigenous to the adult population is its diversity. . . Solutions to the problems of adults reentering college go beyond altered pedagogy aimed at matching their cognitive strategies. Chilton needs understanding and respect for what he already knows. He needs to get involved, perhaps by helping less capable students on campus. Char needs major courses offered in the evenings; she needs the bookstore, the registrar's office and the counseling center to be open during the evenings as well. Lois needs self-paced computer-based, instruction, along with counseling for math and test anxiety. Jerry needs lectures repeated at different times during the day or even on different days. He also needs professors who are committed to the idea that general education means a great deal more than just something you are required to do before you decide on a major (Char and Lois need this as well). Finally, Phyllis needs accessible day care, not only during the day, but also in the evening when she needs to do library work. . . While some institutional alterations might help to address the widely divergent needs of the adult student, I see individualized assessment and programming as the only alternative.

Elinor Greenberg, Vice Chair, Colorado State Board for Community Colleges and Occupational Education

As an exercise, I took the recommendations of Involvement in Learning and rephrased them to apply specifically to the adult, part-time learner. I focused on the strategies, or "how-to," aspects of the recommendations in order to heighten their explicitness and make the recommendations more practical. Although I have completed this exercise with all 27 recommendations, the following examples should suggest the ways in which others might proceed for themselves:

For Increasing Student Involvement:

- The first and second years of undergraduate education for adults should offer two alternative patterns: either a conventional, exploratory, interdisciplinary, liberal learning re-entry curriculum could come first, or a focused area of concentration, career-oriented curriculum could come first. An upside-down degree design should be available as an alternative for adults, as well as the traditional "liberal-arts-first, major-second" conventional pattern.

- Adults should assume greater responsibility for their own learning through individually designed, self-directed degree programs, and courses that balance theoretical classroom learning with experiential, out-of-classroom learning.

- In using new learning technologies, adults should use quality computer software and telecourses in combination with bi-monthly seminars, and regular individual telephone or face-to-face conferences with faculty members.

- Systematic programs of guidance and advisement for adults should include interactive computerized guidance systems, one-to-one mentor arrangements, peer counselor workshops, and re-entry transition seminars that are made available on a continuous basis for both enrolled students and adults in the community.

- A mix of part-time and full-time faculty is required to serve adults. Both part-time and full-time faculty should have recent work experience outside higher education. Full-time faculty should function as advisors/mentors for adults. Part-time faculty should form a key resource pool of community experts in various fields and should be responsible for arranging and supervising field experiences, internships and experiential learning opportunities for adults.

For Realizing High Expectations:

- Adult programs and courses should be explicitly competency-based. Students and faculty members should review and agree to the list of expected competencies at the beginning of each course and program. Monitoring or assessment should continue throughout the program. A portfolio of competencies should accompany each student through graduation and into his/her recurrent, lifelong learning period.

- Synthesis and integration are appropriate goals for adult students and can be achieved through such mechanisms as interdisciplinary studies, final projects, degree reviews, and "major works" requiring the use of diverse disciplines and materials.
- Institutions that serve adults should take into account the differences between adults and traditional-aged students in intellectual, ego, and moral development, and should match curriculum content and delivery with desired outcomes that are based on those differences.
- Remedial studies are a necessary component of a comprehensive adult assessment process. Particular attention should be paid to women students in terms of mathematics, science and technology. Math anxiety clinics should be established at community colleges.

For Assessment and Feedback

- Assessment methods should include testing, essays, interviews, portfolios, and performance evaluations. Assessments should be based on in-depth knowledge of how skills, competencies, knowledge, and development, progress and change throughout life.
- Personnel decisions should include effectiveness in teaching, assessing, and advising adult learners. The definition of an effective teacher should be broadened to include both the transmission of information and the facilitation of learning.

2. The Role of Counseling and Advisement

The themes of the panel on adult and part-time students were closely allied to the more embracing question of the role of counseling and advisement in student involvement. The recommendations of the national reports largely assumed the existence of an active counseling and advisement network for traditional aged, adult, full-time and part-time students. But that network, it was frequently observed, often does not realize its potential. So we asked what are the particular responsibilities of counseling and advisement during the first two years of college? Who should participate in the tasks of advisement? What assumptions and behaviors of entering college freshmen must be overcome to produce greater involvement in academic learning? And what are some exemplary practices in reaching adult and part-time students in such ways as to yield higher retention rates? That the panels also raised the issue of the student perspective on advisement services is indicative of the sensitivity and knowledge the speakers brought to these discussions.

Frank Williams, Dean of Educational Services, Gettysburg College

Academic advising may be the weakest link in all of higher education's delivery systems. There are three basic reasons for this:

First, there is a greater than normal distance between students and their advisors in our colleges today. Age is a factor, at least in our traditional institutions. Our faculties are getting older while incoming students continue to come principally from the traditional 18-22 age cohort. Values are a factor. Students value the degree as a credential (not knowledge or wisdom), social and personal success (comfort), employability (and good wages) upon graduation, and self-fulfillment (in the "yuppie generation" sense). Faculties, on the other hand, tend to value wisdom and knowledge for its own sake, their professional advancement and recognition within their own disciplines, and students who desire to develop a world view and philosophy for living (not simply to become "credentialed" for employment purposes).

A second reason for the crisis in academic advising is that there is little, if any, reward system in place for good advising. Advising is not carefully evaluated in most institutions; it counts little toward tenure and promotion decisions, and, in fact, detracts from those activities that do bring promotion and professional recognition to faculty members.

Third, faculty receive no preparation to become good advisors. They have little knowledge of student development theory (e.g. as in Piaget, Perry, Chickering), and they receive little training in skills such as active listening. Neither of these is part of their preparation for the profession of college teaching.

Thus, while a recommendation such as using administrators to supplement faculty advisors may be helpful, it ignores the central issue. We have to make good faculty advising an integral part of the teaching process. An institution must hold that as a priority, otherwise the other mechanisms for improving advising will be woefully ineffective.

Sara C. Looney, Director of Academic Advising, George Mason University

Do you remember the Monty Python movies of the 70s? In "Holy Grail" there is a scene in which travelers approach a bridge over a chasm. As they get midway on the bridge, a voice is heard asking, "What's your favorite color?" The traveler responds, "blue." The traveler is exploded. The same event occurs whether the traveler says red or yellow or green. There seems to be no right answer. It is an exercise in absurdity.

In thinking of the role of advising and counseling, it seems to me that our students are like the travelers. They are hunting for the right answer, the one that will create meaning from absurdity. And to this particular generation of college students, there is a great deal of absurdity. The explosions as they are crossing the bridge (trying to obtain a degree, become educated) are triggered variously by changing job markets, parental expectations, and sometimes, advisors.

My experience suggests that the problem with advising is not malpractice, but non-practice. When we do it at all, we leave it to underlings, do not support or encourage it, and generally relegate it to the periphery of our colleges.

By "advising," I mean career counseling, academic advising, and those services delivered in counseling centers that impact on the cognitive development of our students.

How can we advise and counsel students in such a way as to help them make meaning of their attempts to become educated persons? There are literally hundreds of programs from which to learn, for example, a decentralized advisement program at Iowa State, in which each school and college trains, evaluates and recognizes faculty, professional, and peer advisors. Some of the best advising programs exist under the rubric of orientation, e.g., "University 101" at the University of South Carolina, or the Freshman Exploration program at Tufts University. Both of these are credit-bearing programs.

Dave Crockett of ACT has summarized the basic elements that are necessary for a successful advising program, among which are administrative support, recognition and reward systems, a selection and training process for advisors, an advising handbook, information about advisees, frequent and quality contact, reasonable student load, a referral system, and evaluation. A program evidencing these (and other) characteristics is expensive. But as the literature on retention, persistence, and student cognitive growth has demonstrated, the effort is worth it.

Theodore Miller, Coordinator, Higher Education Program, University of Georgia

For optimal educational and personal development to occur in the college setting, students need an environment in which they experience a warm and sustaining climate where they are made to feel that others respect, support and care for them as developing human beings, and where education is viewed by all involved as resulting from the interaction between students and their environments. Kurt Lewin's person-environment interaction formula (1936) suggests that it is indeed important for students to be actively involved in the learning environment, for that is how human behavior (and learning) is activated. This educational environment is, in effect, the context in which students come to make meaning out of their life experiences.

After analyzing America's best-run companies, Peters and Waterman (1982) concluded that good business practice dictates that leaders listen to and learn from those they serve. Higher education leaders need to spend more time listening to their students about what they are learning, how they are learning, and why they are learning what they are learning.

For advisement and counseling efforts to succeed, this environment should also be conducive to open and free dialogue, where all parties are clear about and secure in their respective roles, where there is a climate of mutual trust, and where growth, development and change are expected, and where there are leaders who intentially work to stimulate and guide that change while making it clear that the major responsibility for education rests with students themselves. . .

Ernest Holloway, President, Langston University

The role of counseling in providing services to facilitate a student's adjustment to college is paramount. It is necessary to isolate and recognize legitimate differences between counseling and advising. It is also imperative to understand the roles that other university officials play. . .

The first major responsibility is to ascertain a student's academic abilities. The core areas of reading, communications (both written and verbal), and mathematics have to be assessed in terms of strengths and weaknesses. This can be attained by using locally developed tests or through national testing programs. After the student has been assessed, it is the responsibility of the college to assist the student in program and course selection. New students who have declared a major and who do not evidence deficiencies in the basic skills, and continuing students with declared majors and who are not in academic difficulty, should be referred to the teaching faculty for advisement. The undecided student, the student with basic skills deficiencies, the new transfer student, the part-time, non-traditional student, and the continuing student in academic difficulty should be referred to student affairs personnel for counseling.

A large proportion of students 25 or older who have had a break in their educational experience are returning to take courses for general enrichment, career change, first career, or for graduate studies. Colleges and universities need to respond to the special needs of these students through a counseling system that includes:

- Support groups to facilitate the transition of these students back into the formal education setting;
- Training programs to sensitize administrators and faculty to the special needs of these students;
- An adequate range of conference hours during which these students can receive counseling; and
- Advisement of these students into appropriate curricula.

Counselors and advisors in this process must recognize that their roles extend beyond the academic ramifications of postsecondary education, that advising non-traditional students should include quality of life issues, and that accurate information must be provided in a caring and clear manner. . .

3. Alternatives to Formula Funding

It has become almost a cliché of the trade that higher education trapped itself with an enrollment-driven funding model developed in an age of expanding enrollments, and that is now potentially disastrous in an age of level, or declining, enrollments. While the analysis has usually been applied to public institutions, it is also relevant to the ways in which private institutions allocate their resources internally. Involvement in Learning suggested that higher education find less actuarial bases of funding and methods that would focus the attention of the system on quality. Such methods of funding, it was offered, could reward achievement and provide incentives for improvement.

For some commentators and critics, this was an idealistic position. So, at each of the regional conferences, a panel consisting of those who write the funding mechanisms, study them, and respond to them and use them, was asked to reflect on the virtues and limitations of both formula funding and its alternatives. The responses of the panels demonstrate a high degree of expertise in these matters, and are both thought-provoking and rich in recommendations.

Bryce Jordan, President, The Pennsylvania State University

Before looking at alternatives, we must first recognize that formula funding has been an enormously useful tool, and then ask about the virtues and limitations of the practice in different places and circumstances.

Formula funding must be based on reasonably good cost accounting, and cost accounting (particularly in complex organizations like research universities) is devilishly difficult. Think about the complexity of enrollment variables that a good formula system must take into account: by headcount for some activities (like student services); by credit hour generation in others; by level of instruction or service; and by discipline or organizational unit. And all of these variables must be regularly reassessed, in part to allow flexibility. Above all, a good formula system is flexible in terms of internal allocations, and, in public institutions, does not exclude use of special item funding in state appropriations.

Even if not totally accurate as to the funding of real cost, a good formula system is a very useful measure, a tool in the management of academic programs. For example, one can address inefficiencies among academic programs if the formula reveals that a particular program is earning far less than it spends because enrollments are too small, or class sizes are too small or overhead is too high, and/or course options in a program are too broad.

But formula systems have problems. On a short-term basis, they are difficult to interpret in periods of growing enrollments; are generally inefficient in periods of declining enrollments; and tend to encourage enrollment for enrollment's sake (historically, in fact, they caused over-expansion of graduate work, particularly at the doctoral level). Furthermore, in public institutions, they are subject to the winds of politics (one may be funded at 60 percent of the formula one year and 70 percent the next). And, as Involvement in Learning notes, they lack incentives for the qualitative assessment of programs.

Partly for those reasons, but more because the projected decline in student enrollment is leading to the fear of loss of funding stability and critical mass (student services, library, proper faculty to "cover" a complex discipline, equipment), there is, at present, a movement away from formula funding in state systems.

In considering alternatives to formulas, we must think carefully through the following factors: (1) the application of standards of quality or efficiency (particularly when these are externally imposed); (2) the basic operating costs of the institution, no matter what funding system one chooses; (3) the use of line and special items, to go beyond the base (this is a priority-setting approach that can be used on either a semi-permanent basis or a one-shot, catch-up basis); and (4) trends in enrollment.

John Waggaman, Professor, Florida State University

Public officials best describe their support of formula funding when they explain that it is a means by which they meet their need for some detailed measure of workload. They further explain this need by indicating that they want some concrete evidence about the ways in which appropriated monies are used. At the next stage, the explanation becomes very provocative because there are at least two coexisting schools of thought about the management of public resources.

The first is based on the executive management model: give the appropriations to the institutional managers, provide the minimum guidelines necessary, reward those who perform well, and discharge those who are inefficient or who use public resources inappropriately. The second approach starts from the premise that all managers of public institutions try to acquire as many resources as possible and spend much of them for purposes not approved by the legislature. Higher education administrators are said to be the least reliable in following legislative intent. . . . The government officials operating on this second philosophy are those who regularly intrude in campus life, and construct funding requirements that represent only state interests.

There is little chance that formula funding will go away. Oh, there will be some tinkering-- the shifting of weights-- aggregation of funding categories one year, disaggregation a few years later, greater competition for resources and only temporary palliatives developed. . . However, the lack of success by state government officials with intrusive measures may be the occasion for second thoughts, and hence, the revival of the executive management mode for the funding of higher education.

What are the alternatives? They span the spectrum from marginal adjustments to radical departures from current practice. In that order, they are:

1) Continued use of enrollment-driven formulas, but only for the support of instruction and only under the principles of equity (which means equal funding of the same programs at different institutions). Lump allocations to each

institution for research and service would be based on its mission and activities for the previous three years. Within each institution, allocations would be based on competitive proposals. . . .

2) The use of the enrollment formula to fund a minimal amount per student--leaving institutions to set tuition rates and fund raising goals for any additional monies needed. Under this approach, the state could appropriate additional funds for special programs--which would be terminated after three to five years if the program goals and objectives were not being met.

3) Continued use of the enrollment formula, but based on the level of funding received at some high point in the previous five years, then allowing each institution to reduce the size of the freshman class and the number of transfers-in up to five percent of the high enrollment. . . The purpose of this approach is to raise funds for quality enhancements at the undergraduate level.

4) In conjunction with any of #1-#3, the state or an institution would set tuition at the price for twelve credit hours per semester as a flat fee, but allow students to enroll for up to sixteen credit hours per semester without paying additional fees.

5) Permission for state institutions with good management records to carry forward unencumbered fund balances from one fiscal year to another, to manage their own business activities (purchasing, contracting, bond financing, personnel merit systems, etc.), and to retain a percentage of the cost of programs voluntarily terminated. . . A more efficient management of resources should save funds for the purpose of enhancing quality throughout the institution.

6) Requiring all lower-division students to enroll in at least ten semester hours of summer session courses before commencing the junior year. This would permit an increase in the number of lower-division hours to be required, provide a more efficient use of existing buildings, labs, and libraries, and provide salary supplements for the faculty.

7) Provision of an incentive system in which the state would match gifts to institutions for purposes of establishing endowed chairs--provided that this special funding does not result in a reduction in existing faculty positions. . . The endowed chair holders should be required to teach at least one course to lower division undergraduates each year.

8) Provision of lump-sum funding to either the state higher education agency or institutions, so that they may better manage their own resources. In this approach, the state would remove restrictions on the transfer of funds between budget request categories, along with other restrictions concerning short-term investment of funds to earn interest for extra scholarships.

9) Funding institutions for at least a two-year term, with permission for requests for supplemental funds, provided that they must either cover inflation or fulfill provisions of an approved master plan. Under this system, institutions would be treated as non-profit organizations with public purposes but be exempt from all state supervision except for approval of five-year master plans (with specific commitments to the enhancement of lower-division education and student achievement) and post-auditing.

10) The federal government would take over the funding of college education for all needy students who qualify for admission. However, the subsidy for a student attending a private institution would not exceed that for a student enrolling in a comparable program at a public institution. A needy student could be defined as someone who was unable to work, save, and/or borrow enough to pay 30 percent of the cost of attending college. . . In addition, states would take over the guaranteeing loans to qualified residents who wish to attend college, whether in or out of state.

11) Either in conjunction with #10 above or in place of it, the federal government would establish and operate a "National Incentive for Higher Education Loan Fund," which would be authorized to loan up to 75 percent of the cost of higher education (undergraduate and graduate or professional). The loans would be for 25-40 years, paid back monthly, quarterly, or yearly, and be accounted for on the annual IRS tax return. The pay-back rates could be graduated according to the median national income level of each person's occupation or profession so that those earning the most would pay back the loan at a faster rate. Special reduced pay-back rates (or forgiveness policies) might be established for occupations that have a clear national priority. Persons unable to find suitable employment or those unemployed for 90 days might be given an opportunity to perform national service and be paid enough to make minimum payments on their educational loans.

John Folger, Professor, Vanderbilt University

I am going to concentrate on the university environment. . . because universities have the largest share of undergraduates, and because I know more about them than about other types of institutions.

An issue raised by the NIE report is how the disincentives to good undergraduate education can be overcome. In the specialized environment of the university, a high-quality liberal education won't just occur; it must be given a priority by the institutions, which must divert some of the time of leading faculty from their specialized and graduate concerns to attention to the undergraduate program.

A university can encourage departments to devote attention to undergraduate education through various incentives--summer appointments for curriculum development, more support staff, recognition awards to good undergraduate teachers. Probably the most potent incentive is to withhold tenure from persons who are not effective undergraduate teachers. . . [but] the incentives for the administration to divert resources from a department's specialized emphasis on graduate education and research to undergraduate education are weak. . .

Most universities will not do much to change the reward structure for undergraduate education without some outside stimulation, and the most likely source of that stimulation are the states. Nearly three-forths of the university undergraduate students are in public institutions and would be positively influenced if states provided incentives. . . . Public institutions' consequent attention to undergraduate education would stimulate private institutions as well, since they must compete with the public institutions for students. . .

State involvement in the promotion of undergraduate quality will bring additional state requirements for accountability. . . Before we conclude that the state role in evaluation is necessarily bad, though, we should consider the case of the federal government.

The federal government has for many years successfully used a peer review process for the evaluation of research proposals, and for the allocation of research funds among institutions. This type of government involvement in quality assessment is widely accepted, which indicates that a proper state role in assessing the quality of undergraduate or graduate education can be developed. Louisiana, Florida, and North Carolina are examples of states that have applied the peer review model to program evaluation. These review processes have sometimes led to reallocation of resources and to the elimination of some weak programs. Generally though, they have not changed the basic incentives for faculty or students, and their impact on the quality of undergraduate education is thus probably quite limited. . .

An even more important reason that states have not been trying to change the incentives is that state leaders have been more interested in graduate and professional programs, and in the role of the university in economic development, than they have in promoting undergraduate education. States have initiated business-university partnerships, have funded centers of excellence programs, and have provided matching money for endowed professorships. These new state programs have reinforced university attention to their graduate and research status, and have increased the incentives for regional universities to behave more like research universities.

When institutions and states want to increase the quality of undergraduate education and get faculty to give it a higher priority among their activities, incentives are available. The problem is not a shortage of models for making it happen, but a shortage of commitment to the objective.

Elaine Hairston, Vice Chancellor, Ohio Board of Regents

The basic alternative to enrollment-driven budgeting is an incentive-based model. While enrollment-driven models distribute funds equitably, if the goals of the state, and of the colleges or universities, focus on achieving quality, then quality-oriented funding models are often developed at the cost of equity.

The Selective Excellence Program in Ohio is designed to provide incentives for quality improvements without sacrificing equity. It adds to a base budget a series of five interrelated challenge grant programs that encourage individual institutions to make strategic choices to do better what they do well already, i.e., to strengthen strength.

One of these is an "Eminent Scholars" program that funds nine chairs in science and technological fields that are important to state economic development. Another is a "Program Excellence" project that involves a statewide competition for 22 one-time enrichment grants focused principally on the improvement of teaching, facilities, equipment, and academic support services. Yet another is aimed specifically at community colleges, technical colleges, and university branch campuses for purposes of increasing the participation of workers in general postsecondary education, training and retraining.

A much larger "Academic Challenge" program provides each public college or university a supplement of 1% (or $50,000, whichever is greater) to its scheduled instructional appropriation to select its own programs for enhanced quality. Those programs would, in turn, be funded at the higher level through the state's subsidy formula for a subsequent six-year period.

And lastly, the principle of automatic matching funds is built into a separate "Research and Technology Challenge." The state's matching funds--over and above those that an institution customarily commits to a research grant received from external sources--must be reinvested in promising internal research projects of the institution's own choosing.

Thomas Colgate, Professor, Chadron State College

Formula funding is not compatible with a discriminating recognition of differences among the roles or populations served by institutions and programs, and does not account for quality at the same time as need.

What is the alternative? It is funding based on carrying out a specific role and mission, not a role and mission statement written in vague, general, educationese, but a clear, well-defined statement based on need, quality, cost, and importance of the role and/or mission. This type of funding has been done in both education and business for years. In education, we fund schools of medicine to produce doctors--at an enormous cost compared to other programs, but still for a specific function. The old normal schools were funded to train teachers. The schools of mining were funded as single-purpose institutions. . . And in any business, production is paid to produce the product, sales is paid to sell it, and advertising is paid to promote it. All are funded according to the mission they are charged with carrying out. We should adopt the same principles and develop them in programs that will prove more realistic, fair, ethical, and professional than our current formulas.

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